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**'The Raft, the Ladder, the Transitional Space, the Moratorium...': Digital  
Interventions in Twenty-First-Century Private and Public Lives**

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## **Abstract**

### **‘The Raft, the Ladder, the Transitional Space, the Moratorium...’: Digital Interventions in Twenty-First-Century Private and Public Lives**

This project explores the nebulizing effect of digital technologies on their analogue counterparts, and their cultural and social repercussions as depicted in early twenty-first-century novels. The thesis finds five central concerns of digital culture, areas in which the structures and codes of the culture have had to be recalibrated to such a degree to accommodate virtuality, and examines them through the works of a novelist with a fascination for, or resistance to this change. The thesis identifies an irreversible shift in the mental apparatus caused by digital technologies that work on narrativizing powers such as memory, interpretation, and perception, that finds expression in fiction.

Chapter 1 reads Jennifer Egan’s *A Visit from the Goon Squad* and *The Keep* as responses to the phenomena of geomapping, networking and communications in the age of global reach. Chapter 2 uses Tom McCarthy’s novels *C*, *Remainder*, and *Satin Island* to illustrate the distorting effects of digitality on time. Chapter 3 brings to focus the more recent work of J. M. Coetzee, *Summertime*, *Elizabeth Costello*, and *Diary of a Bad Year*, that engages with digitality and a cultural landscape increasing reliant on distancing technologies. Chapter 4 examines the recording and surveilling technologies at the heart of Ali Smith’s twenty-first-century novels *How to Be Both*, *Autumn* and *The Accidental*. Chapter 5 reads Dave Eggers’ *The Circle* as a critique of corporate digital culture, and examines the role of taste in articulating personal freedom.

The conclusion analyses a current crisis point in the digital project, and gestures towards the future of technology in the contemporary novel, speculating on what elements discussed in the thesis might endure and shape fictional narrative as the age of digitality progresses.

### **Introduction: The Advent and Theorisation of Digitality**

"How we have advanced, thanks to the Machine!" (Forster, 1909/1997, p.97)

The prayer of citizens in Forster's 'The Machine Stops' is to a mechanical deity, and the story outlines how 'advancement' manifests in an imagined future where citizens are helplessly dependent on technology. The short story sees the poisoning of the natural environment reformulated as technology acting as a salve to a hostile world turning against its stewards. Forster imagines a dystopian future in which eugenics is commonplace, pain is obsolete because of pharmacological advances, world religions no longer exist, and are replaced by the universal worship of a totem, citizens are kept from exposure to an environment ruined by human actions (for example, the 'literature epoch' destroyed the forests), and people no longer touch, and when they do, it is an appalling faux pas. The citizens live isolated in hexagonal rooms rigged to respond electronically to the comfort of their inhabitants, and they communicate by screens. The sterile and untaxing life embraced by these people soon comes under threat, as the Machine begins to fail. The Machine is a nebulous and vague construct that emits a constant hum, a recurrent motif in the literary body of work examining technology. It has filled the vacuum left by organized religion and is praised as the opposite of all that is bad – in this formulation, everything that is organic and sensory. The society praises itself for the overthrow of nature:

Night and day, wind and storm, tide and earthquake, impeded man no longer. He had harnessed Leviathan. All the old literature, with its praise of Nature, and its fear of Nature, rang false as the prattle of a child. (p.94)

It is unclear if the Machine is metonymous, a singular circuit or millions, controlled by an individual or a team or has intelligence and autonomy. In this setup, Forster issues a warning against living through technology. The society he imagines is uncaring, and following an allusion to Descartes, whose philosophy appears not to have survived in

detail, solipsistic. Citizens claim to have friends in their thousands in their virtual reality, but one character physically recoils from the prospect of touching another, even when being saved from a fall. The central character's son warns her against complacency. During the story, he becomes a Cassandra-like figure by uttering a prescient (if on-the-nose) warning against their god:

Cannot you see... down here the only thing that really lives in the Machine? We created the Machine, to do our will, but we cannot make it do our will now. It has robbed us of the sense of space and of the sense of touch, it has blurred every human relation and narrowed down love to a carnal act, it has paralysed our bodies and our wills, and now it compels us to worship it. (p.105)

As a fin-de-siècle imagining of the teleology of technological reliance, blending 'fictio and mimesis' the story has proven to be prognostic in some respects. (Caporaletti, 1997)

Twenty-first-century life marries face-to-face interactions with an irreversibly digitized mode of communication: the state of being described by William Gibson as a 'consensual hallucination'. (Gibson, 1984/1995) What defines the early century as a distinctive cultural epoch is the penetrating organizing and communicative power of digital networks, made possible by the relative affordability, portability and convenience of software and hardware such as the smartphone. Between sixty and seventy percent of the world's population are mobile phone owners, and there are over two billion active Facebook users, showing the globalism of these networks. (Keen, 2015) Not dissimilarly therefore to the state of affairs in the twenty first century, in Forster's story, ideas that lend themselves to rapid transmission are the most valuable currency. The lecturer protagonist spends her time watching talks and commenting on a variety of subjects, and even dares a trip to the ocean for research. However, the methods of generating ideas – exploration and encounters with the hitherto unknown have become undesirable in the new order. Physical travel is at odds with and has 'no connection with the habits that really mattered.' (p.109) The intelligentsia is sated by the renderings of history mediated through technologies: 'Those who still wanted to know what the earth was like had after all only to



listen to some gramophone, or to look into some cinematophote.’ (Forster, 1909/1997)

The pervasive episteme based on Enlightenment ideals of rationalism and reason (Cassirer, 1966) has collapsed and mutated: ‘Beware of first-hand ideas! ...(they) do not really exist. They are but the physical impressions produced by life and fear...Let your ideas be second-hand, and if possible tenth-hand, for then they will be far removed from that disturbing element – direct observation.’ (p.109) This reliance on information filtering is developed in Aldous Huxley’s 1931 work *Brave New World*. (Huxley, 1931/2007) The knowledge treasured, taking this philosophy to its ad absurdum end is to perceive history ‘as it would have happened, had it taken place in the days of the Machine.’ (p.109) Forster’s considerations of filtered ideas rings painfully true within the changing episteme of internet culture. The ‘fake news!’ refrain of alt-right-steered demagoguery in the present day, and the complex circulation of online fictions masquerading as fact, and shared as such, has much in common with Forster’s imagining of the rungs of truth and fact, sharing a loose rapport as in George Orwell’s later conceptions of ‘doublespeak’ and ‘bellyfeel.’ (Orwell, (1949/2008) The talk that advocates this approach in the story is greeted with rapture by the audience by tapping into ‘a feeling already latent in the minds of men – a feeling that terrestrial facts must be ignored’. (p.110)

The ‘stopping’ of the Machine appears in the gradual breakdown of comforts – the bathwater stinks, the pleasant music that fills Vashti’s room becomes discordant and foods moulder; and the citizens fatalistically accept the changes, until the malfunction has casualties. The Machine people’s undoing is in the words of Emelie Jonsson that ‘they have adapted further to their tools than they have adapted their tools to their environment’, and furthermore relating to the Machine ‘as if it were an environment in itself.’ (Jonsson, 2012) As in H. G. Wells’s novella *The Time Machine*, the source of the story’s unease is the gradual undermining of a cultural complacency about the consequences of ‘convenience’ technologies and systems. Travelling thousands of years into the future, Wells’ traveller tries to make sense of what generations of industrialisation have resulted in:

The great triumph of Humanity I had dreamed of took a different shape in my mind. It had been no such triumph of moral education and general cooperation as I had imagined. Instead, I saw a real aristocracy, armed with a perfected science and working to a logical conclusion the industrial system of today. Its triumph had not been simply a triumph over Nature, but a triumph over Nature and the fellow-man. (Wells, 2005, p.49)

Each of the traveller's conclusions in this passage are falsified during the novella by the direst means: he comes to realise that there is no 'triumph', and that humanity has diverged into predator and prey. The latter, the 'Eloi' are the future race who live on the surface of the earth. The industry of their ancestors has resulted in their own lack of purpose. The environment and society causes the traveller to contemplate 'how brief the dream of the human intellect had been' (p.78): there are myriad examples of how ingenuity becomes obsolete through a lack of education in the imagined future. The traveller saves an eloi from drowning in a puddle because it does not occur to the other eloi to help him, and their physical feebleness would make it impossible regardless. The traveller notes: '...nature never appeals to intelligence until habit and instinct are useless. There is no intelligence where there is no need of change.' (p.79)

Writing within a twenty-year span of each other, Wells and Forster show how embryonic behaviours in the West negatively developed in response to the accelerating intervention of automated technologies in all spheres of life. These include a raised tolerance for informational inaccuracies, more acceptance of conditions that compromise wellbeing and weakness against dictatorial power. The influence of Wells and Forster's creative vision for the automated future endures in the reactionary works of filmmakers, artists and writers concerned with the encroachment of digitality. The anthology series *Black Mirror* written by Charlie Brooker is a prominent example of this vision: the episode 'Fifteen Million Merits' bears striking similarities with Forster's story in its evocation of a hermetically sealed living space catering to its largely purposeless citizens. In an internal monologue, the protagonist sees beyond the trappings of the world, addressing the 'Machine' directly:

Show us something real and free and beautiful. You couldn't... It's only so much wonder we can bear. When you find any wonder whatsoever, you dole it out in meagre portions. Only then until it's augmented, packaged, and pumped through 10,000 preassigned filters till it's nothing more than a meaningless series of lights... (Lyn, 2011)

These 'filters' and augmentations fulfil the same purpose of truth distortion as the Machine's model of history, changing meanings and structures of understanding to protect this central power. Forster and Brooker imagine worst case future scenarios in which totalitarian forces promote technology as the sole solution to environmental disasters and societal collapse. Evgeny Morozov sees the phenomena of 'solutionism' as the contemporary manifestation of this impulse. (Morozov, 2014) Like Morozov, the examples in *Black Mirror* and Forster's story question the wisdom of turning to innovations to absolve individuals and groups of responsibilities. Citizens are 'safe' from the ravaged environment if they refuse to question the status quo. The 'solutionist' dystopian societies rely on parasitical models of living: information, communication, architecture, and utilities are 'doled out,' as Brooker has it.

This thesis dwells on the effects of what I call the 'nebulization' of information and material; the increasing drive towards immaterial storage of the world's communications and documents, on English-language fiction engaging with the present state of 'tēchnē.' We increasingly think of information in terms of the 'cloud;' carrying with us a certainty, dread, or hope that all around us is somehow recorded. 'Cloud' evokes lightness, and transparency and has an elusive and shape shifting quality, but also has the integral strength to hold and then burst cyclically. Seb Franklin's work on the politics of cloud mentality draws out the wavering between 'transcendent ethereality and complex materiality' (p.452) as a model for its lofty aims of implementing cybernetic logic to understand 'the world as totally computable.' (Franklin, 2012, p.454) The project of domestic and organizing digital technology initially appears modest. The 'Alexa' model

pioneered by Amazon, Siri of Apple, Google Home of Google etc. sell the harmless technology that seem to ameliorate everyday life, giving helpful reminders, shortcuts to easy purchasing and time-saving features. Additionally, these technologies chime in to what N. Katherine Hayles identified as the growing interest in 'locating agency within material processes': especially for those with a vested interest and 'desire' to find agency 'other than in human actors.' (Hayles, 2017, p.83) However, the scale of what these monoliths imagine for the automated future is staggeringly ambitious; and profit-driven. The neoliberal project embraced by the West has spawned the Silicon Valley effect of start-ups being powered by billions in private and sometimes public investment and becoming untouchable monopolies in their respective fields (all the companies above fall into and indeed exemplify this category). (Taplin, 2017) The digital future's main product is data; and most specifically, data from consumers; and the aim is to maximize the number of consumers. Dataism, the worship of big data and what it can reveal about the world inspires both excitement about its ability to potentially offer a common language between humanities and sciences, and trepidation on its potential role in dismantling the humanist project. (Harari, 2015) Dataism is now an established way of thinking about the modern world, but there are public signs of resistance and concern. (Lohr, 2015) The Cambridge Analytica scandal of 2018 prompted renewed international conversations reflecting on the extent of data harvesting, and rethinking regulations to prevent abuses of a similar scale in the near future. (Editorial, 2018) Furthermore, the Federal Communications Commission, or FCC repealed Net Neutrality in the USA, allowing broadband providers essentially the freedom to adjust broadband speeds according to the content; therefore, for content against the interests of the providers, for example, information hosted on rival sites, companies can slow down streaming rates; for their own content, it can be speeded up, creating an imbalance in what users can access, with potentially alarming consequences for free speech. Following the ruling, many articles and think pieces appeared to interrogate the incompatibility of net neutrality and neoliberalism as the cause of the

repeal, and to criticize attempts by the FCC chair Ajit V. Pai to persuade the public that broadband providers will self-regulate in the public interest without federal regulation. Hal Berghel for example describes the promotion of equality inherent in net neutrality as a 'suboptimal profit tactic for the broadband industry' and lists the 'concerns' on the part of those businesses, 'that Internet fairness will cost jobs, limit availability, boost competition, and secure privacy 'as a pure 'smokescreen'. (Berghel, 2017) The implication of this development is a new step in making allowances for monoliths of the tech industry running entirely counter to public interest, but all the while, masquerading as a way to expand personal freedoms.

### **The Development of the Digital Network**

The 'internet' is an ever-evolving summation of years of developments not only in wireless technology, but the basic tenets of mechanical movement and calculation. Developing the capabilities of network and wireless technologies has helped in the individuation of the machine beyond human usage. When thinkers and artists of today imagine an era beyond the Anthropocene, robotics, artificial life and automation are at the forefront of their divining. (Harari, 2015) We can trace the intellectual impetus that led to the discovery of the internet in the mid twentieth century back to ancient developments in problem solving. The development of the counter abacus marked a stride towards the development of 'tēchnē,' creating a rudimentary 'machine' for calculation. There is speculation as to the origins of the instrument, but evidence suggests its earliest adoptions in India, the Middle East and North Africa. (Smith, 1953) The word 'computer' is recorded as first appearing in 1613 in *The Yong Mans Gleanings* by Richard Braithwait, (Editors, 2008) describing a person with the ability to carry out calculations. The eighteenth century marked developments in mechanical technology, such as the competition held by the Saint Petersburg Academy of Sciences in 1780 that Friedrich Kittler credits in his survey of

technological innovations as making ‘voiced sounds, and vowels in particular, an object of research, and inaugurated not only speech physiology but also all the experiments involving mechanical language reproduction.’ (Kittler, 1999) In 1772, a Swiss watchmaker called Pierre Jaquet-Droz invented a mechanical doll that could write. (Kalan *et al.* 2010) Around this time, the fascination with the automaton, and how to reproduce isolated human elements mechanically rooted in the collective imagination. ETA Hoffmann’s famous short story of 1817 ‘Der Sandmann’ culminates in the discovery that Olympia, a beautiful woman of uncanny symmetry and allure who has captured the heart of the hero, has been an automaton all along: ‘where the eyes should have been, there were only pits of blackness – she was a lifeless doll!’ (Hoffmann, 1816/1982, p.120) Around this period, it became clear that the automaton had the potential to perform hitherto human actions; writing, speaking and even seduction.

The ‘computer’s’ gestation has a long and contested history; and the continual unveiling of its myriad functions and rapid redefinitions of machines with the ability to perform complex tasks in a way recognisable to their current counterparts, further complicates its history, so I will briefly summarize key points in this development. The nineteenth century saw the creation of multiple attempts at Charles Babbage and Ada Lovelace’s Difference Engines, designed for pure calculation. (Isaacson, 2014) From there, the development of the computer takes on a different cast, due to the close entwining of computational breakthroughs and the aid and financial backing of the military in the West. At the close of the Great War, Arthur Scherbius of Germany invented the Enigma machine; forever changing the nature of international warfare. (Leeuw and Bergstra, 2007) The Enigma produced impenetrable codes that enabled the relay of instructions and information without interference or discovery by the enemy. In WW2, this machine’s code was famously broken by innovations from the team at Bletchley Park, led by Alan Turing, one of the most influential thinkers of the century; not only a figurehead for the invention of the ‘Universal Computing Machine’ that provided a template for many generations of

computing, but the developer of the Turing Test; the criteria against which artificial intelligence can be gauged. (Hodges, 2014)

A conversation between Friedrich Kittler and the philosopher Paul Virilio found that the invention of the computer would not have been possible without the interventions of the military-industrial complex. Virilio claimed that ‘the truth is that both computers and atomic bombs are an outcome of the Second World War’, with Kittler adding ‘...(computers) were not devised as communication tools but as means of planning and conducting total war.’ (Virilio *et al.* 1999) The advent of the internet and the emergence of modern warfare are simultaneous. The internet is not neutral; its original function was as a weapon; well understood by the thinkers I will discuss in this introduction. Even at its most ‘innocent,’ its project is to reorganize and reprioritize experience.

### **McLuhan, Kittler and Stiegler**

The intellectual history around technology is vast, and so I would like to focus here on key theories of three prominent twentieth century thinkers that have prompted questions into the nature of an increasingly nebulized society; the shifting of established structures and touchstones of identity and an altered relationship with materiality: Marshall McLuhan (1911-1980), Friedrich Kittler (1943-2011) and Bernard Stiegler (born 1952). McLuhan’s influence in the sphere of media is formidable. He is now lauded for his prophetic pre-figuring of the internet, and his thoughts on technology’s capacity for prosthetic functions continue to generate debate and reformulations. Kittler’s work engages with and diverges from McLuhan’s, examining technology’s power to transform its user and dictate the epistemic sphere. Stiegler examines the effect of the increasing prominence of automation and technics on areas such as time, the spread of information and ‘attention,’ and like Kittler, imagines technology as an individuated force that works upon the human. The

dialogue between McLuhan, Kittler and Stiegler's works on the coexistence of the human and technology raises vital questions about mass consumption and its effects on society, and the nature of the interaction we have with this kind of information.

The overwhelming rise of New Media in the mid twentieth century created opportunities for new disciplines to emerge; and Marshall McLuhan's contribution to interdisciplinary critical thinking in this era was substantial. As a communications scholar, McLuhan took new technologies, notably television, seriously in their ability to shape society and the individual. His talent for aphorisms and keywords, mirroring the culture he scrutinized has ensured that concepts such as the 'Global Village', 'hot and cool' media and 'the medium is the message' have enduring currency and popularity, despite McLuhan having his detractors, and frequent accusations of unscientific approaches. (Marchand, 1998)

His approach was to examine the audience as much as the forms of media themselves: to measure the nature of the responses each form drew. He perceives human history in terms of the epochal upending of 'unique ratios of sense perceptions.' (McLuhan, 1967/2008)

From his earliest works, McLuhan compares the pre-alphabet era's reliance on orality with the age of writing, which encompasses and fermented the era of artistic perspective and dominance of the visual. (McLuhan, 1962) This not only affects the senses, he argues, but reasoning abilities; literate and writing-dependent peoples became wired into embracing 'connected and sequential facts of concepts.' (McLuhan, 1967/2008) *The Medium is the Massage* as an object is an attempt to perform this theory. The book aims to disrupt reading by featuring such tricks as mirror writing, upside-down text, and a collage of images in collaboration with artist Quentin Fiore. The playful title reflects the demonstration of how media affects and transforms the 'sensorium' and credits it with the power to manipulate and extend the body.

McLuhan outlines ways in which he believes technology has a prosthetic function. He speculates how a digital sphere might work upon the 'psychic or physical.' (McLuhan, 1967/2008) He imagines the basic technologies of the wheel, the book and clothing are



extensions of the foot, eye, and skin respectively. Employing this logic, he goes on to suggest that electric circuitry is a companion or prosthesis for the central nervous system, which charges circuitry with enormous sensual responsibility over the individual; a claim that continues to hold sway over philosophical and scientific investigations into the effects on screen technologies. McLuhan's work on circuitry is a predecessor of Hayles' criterion of the production of the cyborg, who is constructed by the 'informational pathways connecting the organic body to its prosthetic extensions' (Hayles, 1999, p.2) that depends upon a concept of disembodied information with the ability to negotiate both organic and synthetic spaces. Expanding on technology's prosthetic function, Hayles finds McLuhan's principle of amputation (or autoamputation) to be deeply influential in her own work. She commented on the principle: 'electronic media are capable of bringing about a reconfiguration so extensive as to change the nature of "man. "' Amputation simply put is where individuals offload physical or mental labour to machines. Hayles goes on to question if the principle is ultimately 'futile', as 'truncated parts splits in two again and the relentless progression continues.' (Hayles, 1999, p.117) This, to me is tantalising; and reflects a weakness of McLuhan's work: where do these boundaries of man and machine end? How do we define both the labour, and the technology? Whether there is a limit to amputation is a central question of this thesis.

The 'nervous system' of circuitry leads us to another of his important discoveries, in how media not only changes sense ratios in the individual, but the public. McLuhan isolates and examines groupings and spheres, such as 'family,' 'neighbourhood,' 'job,' 'government' and speculates on the problems inherent in supporting them with pre-digital mind-sets. He makes the bold claim that 'The public, in the sense of a great consensus of separate and distinct viewpoints, is finished.' (McLuhan, 1967/2008, p.22) A ringing aphorism makes the claim that 'we have become irrevocably involved with, and responsible for, each other.' (p.24) McLuhan suggests the emergence of an 'Age of Anxiety' that has arisen from the chasm opened when approaching 'today's job' with 'yesterday's tools- with yesterday's

concepts.’ (p.9) This, McLuhan explains, goes some way to explaining tensions between generations: that consumers of new media nonetheless continue to think in the same dimensions as in the pre-electric age. (McLuhan, 2001) The paradox of collectivism and the digitally enabled cult of the individual, and generational tensions has resonance in the twenty first century. What makes McLuhan a vital figure is that he poses these questions and these tensions as a definitive characteristic of new media: that somehow in the face of rapid developments in technology, people must admit that their own apparatus of perception, measurement, and adaptation with always have an untimeliness and friction with *tēchnē*.

Kittler’s work follows on from McLuhan’s example of probing into the role of technology in humanities, and often engages with McLuhan’s theories, which he admired, if not without reservation. Kittlerian technology posits that people are the subjects of technology, and explores these epochal manifestations, evaluating how the mind is shaped by the tools at hand. One major departure from McLuhan’s work is Kittler’s theory that rather than being a prosthetic for the body, technology is working on the body to effect corporeal transformations to better accommodate its own agenda. The great stride that Kittler makes into shaping the digital world is treating technology as a sculptor of the mental apparatus; and reinstating philosophically the importance of *tēchnē*. His interest is in the historiographic capabilities of algorithmic life. He technologizes periods of history conventionally conceived of as pre-technological, and historicizes current technologies by tracing their classical roots.

Kittler found McLuhan’s work to lack interrogation of central premises of the ‘self’ in identity categories such as ideology and nationality. The expansion of big data, and its creations of data ‘neighbourhoods’ in McLuhan’s parlance creates problems, as Chun argues, in attributing responsibility where representation falls short. The ‘body’ of internet users, she claims, ‘is never singular, but plural, and this plurality weds singular actions to probable actions, that is, collective habits’: reservations of categorization shared by Kittler

(Chun, 2016, p.372). Where McLuhan worked on a cosmic level, conceiving of things on the grandest scale, Kittler took a more politicized approach. In dialogue with his contemporary Paul Virilio, Kittler grounds his work on digital technology in its militaristic origins, beginning *Gramophone* with the creation of these networks to sustain military operations in case of a nuclear detonation: a turning point in modern history equally central to Stiegler's thinking.

Saul Ostrow, introducing Kittler's work argues that he is 'not stimulated by the notion that we are becoming cyborgs, but instead by the subtler issues of how we conceptually become reflections of our information systems.' (Kittler, 1997) His work was influenced by Heidegger's philosophy of isolating and then interrogating the foundationalist claims of 'being' set up by Western philosophical dialogue. (Heidegger, 1959/2001) Kittler placed technology at the centre of being and existence, taking the view that technology is independent of the human. (Kittler, 2009) He also takes influence from Foucault's power vestment – the printed page as a controller of the body- and refigures this into distinctive, multimedia 'modern' technologies; most notably in his work *Gramophone, Film, Typewriter*. He has obtained a prophet-like status like McLuhan for his speculations on the nature of future media and its future capacity for convergence. He ventured that the "Optical fiber networks' (would) someday make the distinct media of television, radio, television obsolete', (Kittler, 1999) which has largely come to pass. The notion of 'convergence' is frequently treated as the summit of digital technologies: for example, Don DeLillo's underground cryonics laboratory in 2016's *Zero K*, a manufactory of immortality, is named the Convergence. (DeLillo, 2016)

Kittler's tone on the loss of sensuality in technologies is undeniably plaintive, further evidence of moments of ambivalence on the subject of his work: the coldness of 'sound and image, voice and text...reduced to surface effects, known to consumers as interface.' (Kittler, 1999) He gives the example of the typewriter as typical of this (which he then expands into his first chapter): 'In standardized texts, paper and body, writing and soul fall

apart. Typewriters do not store individuals; their letters do not communicate a beyond that perfectly alphabetized readers can subsequently hallucinate as meaning.' (Kittler, 1999) In the '*Gramophone*' section, he notes the development of the phonograph as the natural follow up to 'A telegraph as an artificial mouth, a telephone as an artificial ear': he notes that 'functions of the central nervous system had been technologically implemented.' (Kittler, 1999)

The 'Discourse network' is a model closely associated with Kittler's oeuvre.

(*Aufschreibesysteme* in his native tongue, it is translated as the 'system of the write-up'.)

Kittler advocates approaching periods marked by the dominance of various types of communication materialistically, post-hermeneutically as an 'archaeology of the present.' (Kittler, 1990) (Kittler, 1997) In a work of the same name, he explores the differences between the discourse network of 1800 – the apex of the dominance of writing culture in which Romantic expressions of the self and rigid gender bifurcations exerted cultural power – and 1900, which broke down these tenants of discourse. What he concludes of these networks is that 'what remains of people is what media can store and communicate.' (Kittler, 1999) His influence is clear on John Perry Barlow's 'Declaration of the Independence of Cyberspace' of 1996, in which the voice proclaims: 'I come from Cyberspace, the new home of Mind': the image of the mind being housed and contained by the software operates within this framework. (Barlow, 1996) Kittler's work therefore sees the apex of human endeavour in the technological artefacts they leave behind, which resonates with the work of digital archivists and those involved in contemporary memory studies. The role of memory and memorialisation within this Kittlerian framework has a long literary lineage. Samuel Beckett's *Krapp's Last Tape* could be watched or read (anachronistically) as a dramatization of Kittler's thoughts, with its obsessions with resonance, artefact and machine subsuming the human. (Beckett, 1959/1998)

The French philosopher Bernard Stiegler works in the same area of theorizing technology as Kittler and McLuhan, and engages in the debates over the locus of power that occupy

Foucault and Derrida. I will refer to his works, including the considerable project, the series *Technics and Time* throughout the thesis, but I would like to take time to explore a recent essay, 'Pharmacology of Spirit', (Stiegler, 2011) which I believe provides fascinating insight into the creation of the digital age, and provides analysis on the anxiety that seems to power it. The essay responds to Derrida's take on Plato's model of the 'Pharmakon,' a social and philosophical model of the circulation of information, and the generational cycle of poisoning and offering remedy. Stiegler examines the shifting dynamics of experience and knowledge in the automated age, which coincides with an apprehensive age of nuclear threat. The argument is dense but deals with the structures that have come into place with the advent of the 'proletarianization' of thought.

The argument begins with a breakdown of the process of accumulating knowledge, describing the faculties coming into development from a first blank state formed by 'care,' which is the first *pharmakon* the individual encounters. He restates the Platonic distinction between the active accumulation of knowledge and creation of the episteme – anamnesis (for Plato the 'recollection' of perfect knowledge) and hypomnesia, which is its antithesis. Anamnesis creates the *pharmakon*, and hypomnesia is created by encounters with it, improperly rationalised or absorbed. Stiegler then moves towards dialogue as the first step in the creation of knowledge. He claims its first function is as a process of individuation; and then, if successful, of ensuing agreement, production of concept, new locution, and agreement on the signification, which results in transindividuation. From there, 'circuits' are formed, then networks, which harbour the circulation of desire (the state of ultimate aspiration to which everything strives.) The anamnestic circuit is produced and allows mathesis to become episteme. In contrast, the hypomnesic circuit results in the interiorization of circuits that are submitted to, rather than shared in. Stiegler typifies proletarianization as the instatement of hypomnesic circuits on an industrial scale. There is then the question of distinguishing between hypo and anamnestic thought –once the circuits exist, it is difficult to distinguish them; and Stiegler continues to

further break down the circulation of knowledge into tiered retentions. These degrees of retention are effectively articulated in *The Machine Stops* and *The Time Machine* as I mentioned before; the 'future peoples' (who are really caricatures of fin-de-siècle society and spiritual decadence) are satisfied with the embrace of information far removed from primary sensory experience. For Stiegler, the tertiary retention, the most far removed from the epistemic source, is poison. Autonomy of the spirit is threatened by the spread of hypomnesic thought and therefore instatement of the metaphysical *pharmakon*, which produces a state of mental proletarianization analogous to the physical proletarianization of the bodies of workers by machines, which Stiegler argues robs the work of '*saviour-faire*.' Stiegler's example of *pharmakon* at this point is Hollywood's industrialization of the citizen, and mass production of the spectator/consumer. Here, Stiegler sees the potential of technics for promoting cultural toxicity.

The argument then returns to the initial state of pre-knowledge; prepared for reception by care, as mentioned, and then readied for the materialization of 'transitional exteriority' which Stiegler lists as 'culture, arts, religion and science' – 'spirit' is created by their recall and presumably usage in the creation of networks and exercise of creativity. Stiegler expresses the need for community in the creation of spirit:

...autonomy is not what opposes heteronomy, but that which adopts it as a necessary default... (and is that which) makes the individual feel that life is worth living. (Stiegler, 2011, p.297)

Stiegler borrows from Donald Winnicott the sense that interiority is shaped by the 'adoption of transitional space' which is then 'co-individuated.' The use of 'space' is vague and unclear, but to my reading it refers to the nebulous mass of exterior elements typified above, that Winnicott proposed in the development of object-relation. Stiegler finds 'compliance' a poisonous and futile process; where information is accepted as true without thought, it becomes a vacuum of meaning. 'Systematic stupidity' therefore is the result of 'generalized proletarianization.'

For Stiegler, 'short circuiting' explains the toxic spread of information: the absorption of *pharmakon* by those inscribed in the production of circuits and networks that then destroys their investment in the production of knowledge, and are then denied the 'desiring projection of imagination,' governed by affect and desire, forces that 'confound' both reason and passion, conventionally laid out in opposition. This creates a 'disruption in the libidinal economy.' Therefore, the misuse of *pharmakon* is also a threat to imagination, as well as rational thought. At this junction, Stiegler pauses to pose the question of what exactly *pharmakon's* role is in the formation of desire, reason, and consciousness, having only explored its toxicity in relation to proletarianization; and describes a wish to approach a new critique of consciousness by exploring the 'political economy of the spirit as formation of attention.' (Stiegler, 2011, p.299)

In the next section, Stiegler then enters into the current era of the *pharmakon* as automaton, appraising the pharmacological après-coup that decides a time signature of deferral in response to the development of 'real time' that denotes the activity of the machine. He finds two major forces in the twentieth century that aided the machine in its dominance over the measurement and experience of time: the implementation of nuclear arms, and mass-market, factory driven, industrialised capitalism. He points to the marketization and widespread availability of military technologies as a watershed point for the moment of 'total proletarianization.' He gives a glimpse of the nuclear control room, containing key components to the fabric of digitality: missile pads, radars, surveillance tools, calculation systems (all connected to wider circuits and networks) and claim it as the culmination of the *pharmakon* becoming 'pure automation' –surely a sobering plea to give even the most ardent warmonger pause in pressing the button; the achievement of almost perfect stupidity, with the power to eradicate life, material, and faculty. The nuclear age denotes the full embrace of structural proletarianization. Stiegler uses the example of the Cuban Missile Crisis articulated by Virilio in *Speed and Politics*. Virilio names the stakes as preserving the 'possibility of human decision and of avoiding a total automation of the

military pharmacological systems.’ (Stiegler, 2011, p.299) Capitalism, Stiegler explains, has abstracted labour time to the point of unrecognizability, creating an off-kilter relationship between work and capital; resulting in the short-circuiting of the ‘right and duty of individualization’ to seek out and practice creativity that has a consequence of ‘social sterilization.’ Transitional space becomes industrial, subjecting circuitry to a process of rapidity that short-circuits to the point of proletarianizing ‘everything that thinks and moves.’

Stiegler then turns his attention to ‘living pharmacologically’: laying out the considerations to undertake in the after-coup space. One suggestion is that a critique of the nuclear age is impossible due to category of ‘critique’ being ‘outdated,’ as nuclear armament marks the end of finite rationality. He argues that the nucleus of criticism is broken when critical possibility is interwoven with ‘absolute autonomy.’ If critical thinking presupposes infinite possibility of progression, Stiegler argues, then the creation of a technology must announce the constant state of ‘self-destruction of the autos.’ We must therefore look beyond, to new categorizations of knowledge and engagement (for Stiegler creativity makes ‘life seem worth living’), and encourage the ‘epokhe’ to seek its original stage of care, and to live ‘pharmo-logically,’ aware of the basic needs of society (Stiegler later states that humanity consists of ‘irreducibly.... pharmacological beings’). Here, Stiegler reiterates care as not the ‘renouncement of reason,’ the noetic and or ‘ignoring sublimation processes,’ so instead a constant state of vigilance and awareness.

In the conclusion to ‘Pharmacology of Spirit,’ Stiegler takes in the cultural steps towards the disintoxication of society. The military-industrial complex that gave birth to the ‘ditto machines’ of the twentieth century inscribed systems of labour with an allowance to co-opt harmful materials in the name of progress. Stiegler notes contemporary efforts to change them; the removal of asbestos, vilification of fast food and public smoking, an imperative to change the methods of mass-farming and energy production poisonous to the environment.



What is important to note of Stiegler's work is that he is an epochal philosopher – he believes in the creation of eras and of the creation and sustaining of active forces within eras, showing his belief also in the era of the digital; hence his pains to define the episteme as a process of 'disintoxication.' A key point in this essay is his proclamation of the epoch as an 'age structurally turned towards the possibility of its nuclear auto-apocalypse.' Thinking on Stiegler's model for creative and fruitful living beyond the automatic age, it becomes clear that active participation in networks and the seeking out of information is key: human and machine can live side by side if humanity can disrupt, interrogate, and intervene in the creation of time flows; which he sees in the disintoxication efforts. He additionally proposes an opposition to the process of 'automatic reflexivity,' and suggests a strategy instead of 'hyper-pharmaco-logical' (highest praise) 'adoption' in contemporary thinking; which entails a process of individuation and 'deproletarianization' (another type of disintoxication) that situates the individual amid active desire. Despite the lofty tone of his own writing, Stiegler also suggests that criticism reformulate its relationship with the *pharmakon*: not aiming at the 'transcendental nucleus of criticism' that has all but evaporated in this age, but at the 'everyday or ordinary capacity for discernment of the extra-ordinary.' (Stiegler, 2011, p.309)

Stiegler, McLuhan and Kittler's work notes a culture of seismic shifts in the movement of the locus of control, that works towards an understanding of technology working on the 'self,' in private and in public. Epochs are created by the changes enacted by their most influential emerging technologies; writing, mass printing, railways and mass media, and currently, smart devices. The relationship between digital ephemera and the twenty first century self must navigate a series of uneasy facts. The first, is the implicit invitation of the technology of warfare and surveillance into the domain of the domestic and the personal. Secondly, the spatial arrangement of the network that empowers the technology. Unlike other forms of communication, like television and radio, digital information is untethered to its sources of power. There is, depending on how you look at it, a brokenness to the

physicality of the wireless network, or an inescapable, gaseous pervasiveness to its structure. It also has equal granularity and grandeur of scope; digital information can be infinitely huge or microscopically small.

As Kittler expected; the laptop, smartphone, or tablet (the hardware that embodies best the form of digitality) has absorbed the functions of myriad technologies and made them, in theory, obsolete, thereby changing materiality. Further than this, the inaugural moment of digitality has altered labour, as shown by Stiegler, by the 'proletarianization' of the 'working' body, threatening to make it obsolete too, unless digitality's place alongside human action is rethought and renegotiated. Not only this, but the virtual has encouraged the treatment of users as both the consumer and the product; the online environments that have been built around the consumer are checked and sold back to them.

### **Digitality on the Page**

Lest this analysis of digital culture become too morbid, the beauty and radicalism of digital culture must also be admired. It has enabled a flourishing of work and thought of how to go forward. Its encroachment offers opportunity to contemplate the responsible uses of its power, its narrative and testimonial possibilities, and opportunities for social healing and activism. The technologizing of history is as thrilling a prospect as it is daunting. N.

Katherine Hayles's preface to *How We Became Posthuman* glitteringly speculates that the modest action of scrolling through a webpage is an induction into the posthuman. She identifies the 'erasure of embodiment' (Hayles, 1999) ushered in, among other things by the cultural infiltration of the Turing test as the principle project of the computer age.

To reflect the utopian and dystopian possibilities of technology, there is a group of secondary thinkers that I refer to often across chapters. Henry Jenkins' work focuses on

cross platform collaboration and user adaptability. A follower of Kittler and McLuhan's transmedia approach, Henry Jenkins describes convergence culture as:

...the flow of content across multiple media platforms the cooperation between multiple media industries, and the migratory behaviour of media audiences who will go almost anywhere in search of the kinds of entertainment experiences they want.  
(Jenkins, 2008)

Jenkins concisely calls the enterprise of mass converged media as 'collective meaning making,' a constant refrain of this thesis as both a driver and an excuse for breaking down privacy barriers and increasing surveilling measures. Kevin Kelly, the founder and formerly executive editor of Wired magazine advocates the futurist and posthuman potential of technology, and writes of the force he calls the 'technium' at work, with an interconnected, constantly 'vibrating' global reach . (Kelly, 2011) Pierre Lévy's work traces, like this thesis, the cultural and social impact of increasing virtualisation, and also theorizes the concept of 'collective intelligence' – particularly salient in the areas of surveillance and taste. (Lévy, 1998, 1999) The digital utopians believe in the opportunities of digitality to enhance life, and to circumnavigate the baser instincts of society. The critical camp, however, often call for greater regulations based on the belief that digitality is revealing itself to have harmful effects on society, and these negative consequences outweigh the progress enabled. One of the pioneers of this stance was media and cultural critic Neil Postman, whose humanism was a guiding principle in his thinking about technology (and led to many accusing his stance as Neo-Luddism.) One of his significant contributions was the principle of the 'Technopoly', as a dominant organizing force in modernity. (Postman, 1993) Evgeny Morozov, mentioned previously, is one of the most vocal and prominent tech-sceptics, who is active in rethinking democracy in practice in digitality, and is famed for his critique of so-called 'solutionism', which he believes pathologizes basic human behaviours and creates 'problem' mind-sets to advance virtuality. (Morozov, 2012, Morozov, 2014) Sherry Turkle is a leading voice in the

sociology of digitality, whose substantial career has seen her evaluating changes in our social interactions based on our closer relationships with communicative technologies.

(Turkle, 1997, 2011, 2015) Susan Greenfield's often controversial work on the impact of digital technology on the brain has had a significant impact on how we think about the possible medical and psychological repercussions for an overreliance on screens.

(Greenfield, 2014) Andrew Keen started in Silicon Valley as the CEO of a music app, before embarking on a career in exploring how the tech industry negatively impacts spheres such as professional criticism and analogue industries. (Keen, 2007, 2015) Jaron Lanier also began in Silicon Valley as a programmer, and continues to work in virtual reality; and has produced works on economic disenfranchisement and the downsides of open source information. (Lanier, 2013, 2011)

Although technology writing should be democratic and an opportunity for all, it is imperative to note that the significant majority of the figures listed here are cisgender-male and white; which reflects wider debates on the trajectory of digital culture in its representation and whether the barriers to hearing disparate voices are being kept up virtually: especially when faced with a substantial, and critically, increasingly visible body of work (such as Hayles, Safiya Noble and Wendy Chen) that is decentring the discipline. I will discuss the problems of representation in later chapters, and question why, despite having the scope to change these narratives online, arbitrary hierarchies are upheld.

Despite the tools to overcome them being within our reach, as Noble imagines, towards an online interface in which 'users could find nuanced shades of information and easily identify the borderlands between news and entertainment and pornography, or journalism and academic scholarship', (Noble, 2018, p.180) the internet as is presents an astonishingly hegemonic, hierarchical system: and throughout this thesis, oppositional strategies are highlighted.

Digitality has challenged and adjusted contemporary epistemic structures, and this hovers over its presentation in literature. Because of this, the novel is a proper vehicle for

exploring digitality, for reasons that follow. The novel has the Lazarus touch; it has been killed by its detractors and proponents at frequent intervals, but manages to rise and absorb the forces that would kill it off. For example, Walter Benjamin, Zadie Smith, Alain Robbe-Grillet, Will Self and Roland Barthes have all provided riffs on the decline of the novel, all sharing a gesture towards the world made by the technologies we embrace as the weapon to finish it off, and an inherent lack of innovation possible within the form. I hope that this thesis will go some way, as many in this field do, to prove that the core of this argument is a stale and lazy refrain designed to cause outcry but offering few solutions; and is the automatic restatement of the wrong question. The novel is a generative space for reflection and analysis on the chaos of experience and history, uniquely able to accommodate what Ian Watt calls 'the flow of experience' (p.472); and shares with digitality a reliance on network, pattern, structure and archive. (Watt, 1974) Another point to raise in this vein is that I have worked from 'physical' or print novels, that offer a foundation of tension with the subject matter. Hayles' *How We Think* (2012) opens with the statement that 'The Age of Print is passing, and the assumptions, presuppositions and practices associated with it are now becoming visible as media-specific practices rather than the largely invisible status quo,' (Hayles, 2012, p.2) and this thesis operates from this perspective: I comment on the physical processes of novel reading, and highlight disruptive 'moments' of reading in these texts (for example, Jennifer Egan's 'PowerPoint' writing, and Ali Smith's insistence on the element of chance in her writing, in 'Space and Place' and 'Surveillance' respectively.) In Hayles work, 'close, hyper and machine reading' are all at a point of mutation: with close reading championed by print culture, and hyper and machine reading more readily embraced by digital humanities: itself faced with the choice of 'Assimilation and Distinction' (p.46) with or from print culture. This thesis probes into the possibility that print has the capacity and the will to offer these polymorphous modes of reading.

Another question concerns how digital states affects subjectivity; which of course has repercussions for representation in the novel. Sherryl Vint's work on what contemporary science fiction reveals about future 'bodies' and how corporeal boundaries may be refigured as 'embodiment' changes suggests that: 'subjectivity is as much material as it is abstract, about the body as well as about the mind, and subjectivity is shaped by cultural forces that produce the sense of an interior.' (Vint, 2006, p.6) Therefore, smart technologies that assist with or replace functions of the body must necessarily alter subjectivity. Similarly, Yuval Noah Harari connects subjectivity and intersubjectivity with these posthuman possibilities: his speculations on the future of the biotech-enhanced human enshrine fiction as having the potential to 'become the most potent force on earth, surpassing even wayward asteroids and natural selection', arguing that as 'human fictions are translated into genetic and electronic codes, the intersubjective reality will swallow up the objective reality.' (Harari, 2015, p.177) The novel is still at the apex of expressing modes of intersubjectivity. In digital interactions, Susan Greenfield points out, there is a tendency to seek 'sensation over cognition,' which subverts the structure of the conventional first and third person narrative style that dominates fiction; which has the tendency to interpret and analyse as it unfolds. (Greenfield, 2014) In contrast, Hayles' take on these modes highlights the importance of the 'adaptive unconscious', which 'creates the background that participates in guiding and directing selective attention', (Hayles, 2012, 98) suggesting that cognition is rising to the challenge of the digital onslaught by creating, in my understanding, a neural filter through an assertive and judicious process of 'synaptogenesis' in response to these stimuli. (Hayles, p.100) Digitality has additionally opened new avenues for narrative. The anticipatory register which speaks to the unseen crowds is an often-used technique: foreseeing potential criticism and analysis before it hits the page, in response to the idea of cultural backlash and the power, availability, and democratic nature of the think-piece as a powerful discursive tool. Another is the confrontation with the auto archive; the effects of coming up against the forgotten in a way

that is more mundane than the epiphanies and realisations of the uncovered letter, secreted journal, and battered notebook of the paper ages.

One of the major concerns of the digital era is how it calls into question the role of empathy. Much is made of effects on the ability to empathize that exposure to media can have on the individual and public, and the digital screen radicalises this further. The rapidity of changing laws in areas such as hacking and leaking private information reflects a changing attitude in acknowledging the gulf between acceptable behaviours, and prevalent behaviours. Connected to this, it seems important to question why stereotyping and generalization persist at a point in history when information is so democratized; that in the face of such a body of knowledge on the diversity of society, categories of selfhood persist and are imposed on people.

Alterations in the retention of information has deeply changed our relationship with memory and memorialization. The material relationship people have with physical repositories is not as it was. A day's events can be logged, processed, and reflected on over the multimedia spread: a calendar entry, a few pages written up in a diary, five or six squares of photo film to be developed, two minutes of broken-up footage on a camcorder and all can be sought out and assembled later. With the pressing of a button on a phone, those same events appear sequentially on a screen, in one location. The physical hardware of creating memories, so tactile and individuated, with varied approaches and time loops of incubation unique to each medium is rapidly dissolving in favour of software; of binary code. Another facet of this is where the locus of control has migrated to. Footage collected by a camcorder is contained in the tape, which can be held, copied, distributed to people with physical copies and can be tracked. It has a restrictive physicality in and of itself but has the potential to be mass-reproduced. Footage on an iPhone can be accessed anywhere through the 'cloud,' but is stored in a generator that could be found anywhere in the world, and the user would never know exactly where. In the latter scenario, ownership and privatisation is an impossibility; the locus of control is decentred. Going on from this, the

cultural drive towards collectivism is at the expense of the sphere of the private. There is an implicit demand for the volunteering of private information to the wider body of knowledge. Society's rejection of the sphere of the private, and entering a complicity with technologies that encourage constant networking, shows a new era of communication and understanding.

I would like to suggest a branch of literary fiction, and a few of the major figures within it, that deals with digital culture, from its mundane iterations to its higher-flying manifestations – certainly not exhaustively or prescriptively. Many important novelists of the twentieth century have produced works of fiction that engage with twenty-first-century technologies, carrying within their writing characteristics of what Edward Said calls 'Late Style': an awareness of the passage from one century to another, producing bodies of work astride the twentieth and twenty first centuries. These include José Saramago, Ursula K. Le Guin, J. G. Ballard, Don DeLillo, Thomas Pynchon, Margaret Atwood, Octavia Butler, J. M. Coetzee, and William Gibson. I dedicate a chapter to J. M. Coetzee in the thesis, who has much to say on digitality. In a recent short essay, 'On Literary Thinking,' the novelist takes on the myth of the 'digital native,' arguing that a generation born into digitality is a generation exposed early on to the structures of binary thinking that underpins computer programming. His fear lies in the 'further and deeper takeover of mental life' by 'what I loosely call binary thinking, and the corresponding spread of a form of mental constraint that conceives of itself quite innocently as freedom.' (Boxall *et al.* 2016) The logic of binary, and promotion of YES/ NO approaches to problem solving disturbs the writer, and has implications for the cast of his post-millennium works. There is also a tier of post-war writers that stride the century divide who are transitional writers of technology, who note the strangeness of the slide into digitality. I would place Kazuo Ishiguro, Ali Smith, Ian McEwan, Amitav Ghosh, Neal Stephenson, Chris Kraus, Douglas Coupland, Haruki Murakami and Jeanette Winterson into this category.



Novelists who have gained attention for navigating the terrain of the digital age include Liu Cixin, Mohsin Hamid, Nnedi Okorafor, Teju Cole, Zadie Smith, Chimamanda Ngozi Adichie and Joshua Cohen. Digital culture novels are defined by their timeframe – in this thesis the primary texts in principle had to be written after the year 2000, and in fact in practice the real watershed was the year 2001, the year of the fall of the Twin Towers; an event which has come to define so much of what we understand about the digital world. Another hallmark of digital era writing is in the progressively more globalized approach. Some of the novels under consideration are national in outlook, as in Smith's *Autumn*, which considers the immediate aftermath of Brexit, but most look outward to the wider world, physically and virtuality. The novels embrace what Heidegger calls the 'abolition of distance' (Heidegger, 1959/2001). Digital culture novels are interested in identity politics; the reality or artifice of categorisations based on race, gender, and sexuality; in response to the sphere of the internet's obsession with and challenging of these categories. The utopian ideals of the possibilities of the virtual world to remake the self influenced by thinkers such as Donna Haraway seem alien in the face of contemporary evidence of online harassment and hate speech. (Haraway, 1991) The promotion of transparency devised to tackle these behaviours have instead legitimized their seepage into face-to-face behaviours. Frequently the digital era novel interrogates the viability of genre boundaries between science fiction, horror, speculative fiction; it recognises that the gap of credulity is ever narrowing, and it could be necessary to remediate the horizons of possibility to discuss this. Vint notes that 'we live in an era in which the speculative and the material are so entwined that neither can be understood in isolation.' (Vint, 2011.) In seeking the roving locus of biopolitical power in contemporary fiction, Vint notes that realist modes must necessarily be flexible in accommodating these changes.

An emerging trope or concern in the digital novel is detritus: a sense that where there is progress, there is a remnant or trace left of the 'beforeness.' In 1965, electrical engineer and entrepreneur Gordon Moore was asked to predict ten years of progress in the

electrical conductivity field by a magazine, and came up with an observation that each year, the number of components on an integrated circuit doubled, as the rate of data secretion and capability increased by a steady rate, which he later revised to every two. (Mack, 2011) The principle became known as Moore's Law and continues to influence the cultural understanding of the physical shrinkage of the 'bulk' of technological innovations. This shows a future of unimaginable portability and innovations in nanotechnologies, wearable devices and in areas such as biotechnology. Conversely, it confronts us with a problem of what we do in practical and cultural terms with outdated technologies. Where there is a route of progress that takes up less and less physical space, there is an increasing backlog of now redundant material, whether it is still functional or not. Moore's law has created a counter-principle of rapid obsolescence, which prompts issues of materiality, detachment, and environmental impact, explored by theorists such as Jussi Parikka (2015) and Tung-Hui Hu (2015): neither of whom mention this explicit link with Moore's Law, but as a cultural example, it is powerful enough to draw a wider context from.

The thesis examines five parts of the digital experience to analyse the changing materiality of the novel in response to the corresponding changing materiality of wider communication and knowledge. 'Space and Place' analyses the digital phenomena associated with the sense of place. These include geomapping, networking, telecommunications, and digital communications. This analysis is conducted by looking at the writer Jennifer Egan's work. Her metafictional techniques chart the transformation of spaces serving digital needs, including notably a chapter set near a power grid, signifying the source of the lifeblood of constant access. She explores the arbitrary nature of contemporary selfhood by exploring architecture and spatial planning as ways of creating and keeping social roles and boundaries, and links this to the process of fictioneering; gesturing towards mapping as an act of metafiction. There is a tension in her writing between the allure of the digital and a nostalgia for the analogue that seems to play out in

her flouting and conforming alternately with genre conventions; reviewer Will Blythe notes her 'relentlessly savvy' approach to the digital age confronting a 'remarkably old fashioned...obsession with time's effects on characters, that preoccupation of those doorstop nineteenth century novels.' (Blythe, 2010)

'Duration' uses the novels of Tom McCarthy to illustrate what is at stake in the articulation of time's passage in the digital era. McCarthy unearths patterns of experience and behaviour, and traces from wireless's conception to its present sovereignty the changes from Modernism's time signature to now. McCarthy also gives a model for fiction that takes inspiration from the automaton prized in European conceptions of being.

I discussed Coetzee's statement on 'binary thinking' above, which proves an entry point into the writer's musings on 'Empathy.' Coetzee is a writer of confession, and examining his later works in the light of auto archiving and the gradual eradication of the inner or private self offers a vital critique on the digital project. Dealing with environments increasingly reliant on distancing technologies changes the texture of Coetzee's wider autobiographical concerns. The author speculates on a culture headed towards total narcissism; and probes into the transforming rituals of humiliation and public shaming enriched by technologies that make them easy.

Digitally assisted recording technologies are at the heart of Smith's twenty-first-century novels, and 'Surveillance' shows how radically the public has accepted state soft-surveillance. Appraising a society in thrall to a surveillance that is in turns utopian and dystopian, Smith explores upheavals in identity prompted by defining moments in contemporary history, and uses them to create opposition to a creeping homogeny of narrative. Smith's bricolage of culture enabled by digital means traces a liberating trajectory of narrative that confronts what is at the heart of the web of the unseen, and shows a new dynamic of watching and being watched.

The chapter on 'Taste' examines the changing nature and political standing of expressions of like and dislike, and the curation of aesthetics. Eggers draws out the politics of taste and

its repercussions for democracy and makes connections between the changing nature of the Web from earlier utopian ideals to the current crisis of free speech and agency in internet usage. The chapter probes issues of visibility and transparency, and questions the power structures emerging in the digital era in the areas of voting, business monopoly and financial streams.

What these writers have in common is a shared sense of the novel's potential to adapt to digitality. All dwell specifically on the changing substance of our times, the encroachment of nebulized technology and, in Stiegler's words, its potential for poisoning and disintoxicating culture, and how this can be best articulated. Though contemporaries, all are wildly different in approach. Coetzee's voice shows a theological yearning for confession and testimony in the age of auto archive that is strikingly different to McCarthy's response, mining the avant-garde for novelistic vicissitude. Egan and Eggers contemplate the immediate zeitgeist and the power of the network, and Smith brushes away complacency to expose mythic depths in technology. This thesis will trace novelistic responses across the spectrum to these drastic shifts in the mental apparatus in public and in private needed to deal with trends in the twenty first century: the nebulization of technologies that are amputations of human action, disrupted time, globalization and re-centering subjectivities to accommodate the polyphony of voices that the internet has made more visible.

### **Space and Place: Jennifer Egan**

We are at a moment, I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein. (Foucault, 1986)

At the California Science Centre in Los Angeles in 1998, the then-Vice President of the United States Al Gore gave a speech outlining hopes for the global embrace of a project called 'Digital Earth.' In this speech, he recognised a hi-tech zeitgeist occurring:

...a new wave of technological innovation...allowing us to capture, store, process and display an unprecedented amount of information about our planet and a wide variety of environmental and cultural phenomena. (Gore, 1998)

Gore alludes in the speech to the logistical advances that would be needed for such an undertaking, namely the need to decentralise generators and update broadband networks to compress corporate technology for the aim of a united, 'georeferenced' planet. In the two decades that have since elapsed, in which multiple global summits on technology have taken place, the significant goals of Digital Earth have been achieved. (Mahdavi-Amiri *et al.* 2015) Millions use geobrowsers such as Google and Bing maps daily to digitally map their surroundings. Digital mapping shifts the imaginative scope of wandering and seeking. As Greg Milner imagines, technologies such as GPS present 'a blank slate on to which we project our desires. And what we desire most from it is perfect knowledge of other people's location and behaviour.' (Milner, 2016, p.177) Contemporary cultural geographers have explored the possibilities of this new locative technology for the practice of mapping and cartography, and many, like Andrew Boulton and Matthew Zook have imbued it with implications for the collective imagination of the digitized society:

... (The coding of landscapes should not be viewed simply as a discrete and high technical series of practices involved in the programming of specific high-tech systems and spaces, but rather as a more diffuse set of subjective processes enrolling individuals in

more or less obvious ways in the writing of cultural landscapes.  
(Boulton and Zook, 2013, p.438)

The instantaneous access to the most remote regions of the world that would have been met with incredulity only twenty years ago is taken for granted by web users today. It is this climate of accelerated visibility that novelist Jennifer Egan engages with, weaving into the fabric of her novels the wonder and possibility of traversing a globe with a mere click; whilst simultaneously upholding the aesthetic possibilities offered by space making that depend on sensory interactions. Her abilities as a novelist articulating and manipulating both physical and conceptual space are at their peak in her novels *A Visit from the Good Squad* (Egan, 2011) and *The Keep* (Egan, 2006). The former follows a knowingly nebulous timeline offering glimpses into the lives of connected characters, with a generous location span from the West to East Coast of America, Italy, Kenya, and untraceable spaces between. It is a novel of striking self-awareness; making bold conceptual leaps eased by this fluidity of location. The latter was described memorably by David Bahr as 'an example of literature responding to current events not with a mirror but an artful mindfuck'. (Bahr, 2006) *The Keep* similarly plays with the digital slippage of locations, and adds a metafictional layer between that poses questions about novelistic space itself, as well exploring why the novel might be uniquely placed to narrativize space.

Patricia Waugh's understanding of the era spawning Metafiction as a genre proper is as one that rejects the 'simple notion that language passively reflects a coherent, meaningful and 'objective' world', instead favouring explorations of the 'relationship between this arbitrary linguistic system and the world to which it apparently refers.' (Waugh, 1984) Egan's uses of space and corresponding behavioural and social boundaries are inextricably linked to ideas of selfhood in her novels. Jessica Jernigan observes how the 'ontological instability' of *Goon Squad's* protagonists hinges on their physical and sociological placement: 'only the most hardened existentialist is willing to give up the dream of an essential self. Sure, we might acknowledge that we behave differently at home than we do

at work... but somewhere amidst our jumble of identities that is a *real* self, a *true* self, right?' (Jernigan, 2011) The protagonists of the novel exist within a privileged social framework, all occupying in some way roles with public prominence or visibility. For characters such as La Doll (PR maven) and Bernie (Music Executive), their true 'work' is courting public interest and keeping (or not supporting) beneficial networks. *The Keep* alternatively imagines socially unsanctioned spaces withdrawn from public spectacle; the eponymous hidden castle a psychical manifestation of a man's imprisonment.

### **Cartography, Topography, and Locative Media**

The language of the digital perpetuates its topographical nature. 'Cyberspace' is one of the most widely used designators of the digital; and is not only an explicit acknowledgment of the collectively sanctioned imaginative encapsulation of the web with space, but was a neologism scavenged from Gibson's *Necromancer*, presenting a knotted term that has persistently bound the Net with space and fiction. The web can after all be accessed as a site and a page. Terms such as "blogosphere" and 'domain parking' are now likewise common parlance, imprinting users with a sense of spatiality in their dealings with the web; social media users can be or have 'followers' and 'track' content. Furthermore, these terms serve an ontological purpose. Boulton and Zook figure these topographical terms used in locative media as performing a metaphorical function of 'revealing innards,' and of 'unmasking' the extensive and elaborate coding structures – not only giving epistemological windows to these programs as users experience them, but also the machinations involved in creating them. They additionally note that this creates the effect of 'apparent fluidity and multiplicity' that belie the 'continuous motion and indeterminacy' of code-software that creates a textured experience of understanding in both using the programs, and the language of them. (Boulton and Zook, 2013, p.438)

David Crystal additionally muses on the complex nature of the internet as space in purely practical terms, claiming that:

While in principle much has been made of its ability to transcend the limitations of physical environments, cultural differences, and time-zones...in practice the types of communication which take place are much more restricted and parochial. (Crystal, 2006, p.63)

His view, that many of the daily interactions that take place online are surrogate actions to reach people already close geographically suggests the reality of the web as a 'cognitive map' – giving analogical patterns of the flow of information within communities, albeit within a (presumably) shorter timeframe. On the other hand, despite this cultural entwining, others have been sceptical of how proper the topographical figuration of the web is. In 1996, Wired columnist Nicholas Negroponte wrote a column on web and locality, stating 'Cyberspace is not geopolitical. Cyberspace is a topology, not a topography. There are no physical constructs like "beside," "above," "to the north of. "' (Negroponte, 1996) The image of the topological web has not sparked the imaginations of web terminologists, but there is no escaping again the allure of imagining the web in spatial terms, physical or not. The intertwining of physical and digital space and how we differentiate between the two involves a degree of rationalization and separation, not unlike the experience of reading. Egan and writers like her who draw on our era's complex relationship with spatial practice connect this to fictioneering.

Egan's characters grapple with the vastness of the world and their own shifting geographical boundaries, and this liminality is underscored by a push-pull movement that flirts with and rejects the conventions of genre. It is not incidental that Ted has such an irresistible attraction to the relief in the Museum depicting Orpheus and Eurydice. The myth that warns us to resist the pull of the past and not to transgress physical and conceptual boundaries affects Ted to the degree that the novel pauses:

What moved Ted, mashed some delicate glassware in his chest, was the quiet of their interaction...He sensed between them an



understanding to deep too articulate: the unspeakable knowledge that everything is lost. (Egan, 2011, p.222)

As a form, it also echoes the connection between the chapters and the novel; the relief is a fragment of a whole; and yet prised from this context has a world within itself. A frequent critical question put about *Goon Squad* is if it should be categorized as a novel or a collection of short stories. (Pontin, 2012) Egan has stated many times that she does not favour one reading over the other, and that the gestation of the novel would have been hindered if she had been writing with one genre in mind; stating 'I wanted polyphony. I wanted a lateral feeling, not a forward feeling. My ground rules were: every piece has to be very different, from a different point of view.' (Egan and Julavits, 2010) *The Keep* works against this grain by pulling the narrative into different directions, incorporating elements of the Gothic, the skewed continental Modernism typified by Kafka and prison narrative. Engaging genre conventions to distort them creates an uneasy resistance to the reading of the text, which then enhances the disquiet of Ray's experience of imprisonment in his jittered writings of imagined spaces. The novel presents itself as a manuscript within a journal within a book, and this emphasises the bleeding textual boundaries. *The Keep* slyly alludes to its own puzzle box structure in its sense of dislocation. The 'author,' prison inmate Ray is part of a creative writing scheme and comes to write Danny into existence. Danny strays from his New York life straight into the heart of the Eastern European borderlands, where national claims are 'constantly sliding.' (p.4) GPS is futile and the destinations on his train tickets are blurred, ensuring that the reader is as lost and hapless as the protagonist. *The Keep's* strange geography recalls Italo Calvino's *Invisible Cities* in its insistence that location is an aftereffect of the mind: Danny and therefore Ray's destination exists in the same state as that of Calvino's Marco Polo: places 'like dreams, are made of desires and fears, even if the read of their discourse is secret, their rules are absurd, their perspectives deceitful, and everything conceals something else.' (Calvino, 1972/2002, p.38)

Both novels shuffle chronology and space to such a dizzying degree that is only possible in the novel form; and this impossibility creates a sense of a sanctioned novelistic space.

Ricardo Gallon figures the novel form entirely as a vehicle for the invention of space that:

...exists starting from the moment of invention itself...In the novel absolute space is replaced by a concept of changing space with precise functions...literature has always acknowledged the temporal dimension of space. (Gullòn, 1975)

In Egan's fiction, drawing attention to space means reminding the reader of their own place in the text, meaning that space in her fiction is inherently metafictional.

Furthermore, this 'invented space' seeps into the course of the everyday and creates an instantaneous 'literariness' to digitality. Egan's terrains are markedly self-aware, and bask in invention of all types, typical of the digital sense of place. A prime example of this is in 'Great Rock and Roll Pauses,' the much-cited chapter in *Goon Squad* written in PowerPoint. In the narrative, it takes place in an unknown desert location, and reveals Sasha's family life in the future. The novel, whether read in print or on a screen needs the reader to take the action of rotating the pages, and adapt to the layout of the page, physically interrupting the process of reading, in conversation with the disruptive critical practices of McLuhan. Like *The Keep*, it is presented as an artefact of unknown usage and readership, but is similarly touted as a bid for posterity.

In contrast to her contemporary Jonathan Franzen, who dismissively once described the internet's output as 'meaningless noise', (Franzen, 2015), Egan figures digital technology and culture as an obtrusive force on culture with limitless meaning-making potential.

During an interview hosted by Google Talks, Egan shared her thoughts on the digital age's impact on individuals, readers, and writers. She responded:

I think the big question for me in all of my books to some degree has always been how is technology changing and shaping who we are, internally, not just in the obvious ways that we do things differently. But how does it change who we are to ourselves... I

think if I ever really think I have the answer to that question, I'm going to have to find a whole new direction to go in... (Talks at Google, 2012)

*The Keep's* opening chapter sets the scene as millennial Danny makes his way across Eastern Europe with a satellite dish farcically in tow. We see his ritual:

...(he) took out his cell phone and flipped it open. He didn't have international service, but the phone lit up, searching, and just seeing it do that calmed Danny down, like the phone had powers – it was a Force-field Stabilizer left over from Terminal Zeus. (p.33)

On an unconscious level, for the character, it is the aesthetics of the attempt to confirm his location that soothes him; 'he was so connected that his connectedness carried him through the dry spells in subways or certain deep buildings when he couldn't actually reach anyone.' (Egan, 2006) The locating is an empty gesture, serving no practical purpose; and yet it has an effect of loosening something Danny is unwilling to show to the world – an unfettered and distinctly twenty-first-century anxiety, not lost on *The New Yorker's* review of the novel' neo-gothic tendencies that 'conjure a wicked form of therapy for BlackBerry-addicted urbanites.' (Anon, 2006) His narrative unravels at the removal of this technological tick; his cousin Howie's vision of a utopian space detoxed from technology, in an attempt to 'help people shed the real / unreal binary that's become so meaningless now, with telecommunications yada yada.' (Egan, 2006) The sense of real and unreal is productive to Egan in ways that elude Franzen – the very instability of these forms provokes her into attempts to produce new understandings. The closing fragment of *Goon Squad* (which will be discussed further in the chapter) is a result of this. A fringe character makes her academic career by analysing post-digital linguistics through the lens of the 'phenomenon of word casings...words that no longer had meaning outside quotation marks...Some, like 'identity,' 'search,' and 'cloud,' had clearly been drained of life by their Web usage.' (p.331) Considering Egan's assertions of the importance of technology to her writing, its Forsterian position as a secular divinity in *The Keep*, and its 'draining' powers over elements of daily life as central as our very language, it is vital to ask, as with all

writers concerned with the twenty first century, whether Egan's is a conservative, or cautious reading of the digital. Certainly, the intertwining of virtuality and reality comes across as ambivalent. The moments of liberation are equal to the moments of captivity caused by technology in her writing. David Watson notes this in the structure of *Goon Squad*, perceiving at once satirical possibility, or giving in to the siren call of digital consumerism, in the 'temporal structure in which content – the novel's storyline, a song – is reconfigured as a potential prototype for emergent products.' (Watson, 2017)

### **GPS and the Cloud**

Bennie Salazar's assertion to Alex that 'we have some history together that hasn't happened yet' is suggestive of the rich parallel timelines and geographical coverage drawn through the text. The experience of reading *Goon Squad* feels like choreography; timing and the use of space and relational movement between her characters combine to produce a narrative with much to say on the novel's relationship with its own era. In using the digital as a spectral reminder of the present tense, Egan plays with what Sudeep Dasgupta perceives as an:

...(imaginative) structure in relation to our historical present...to use a particular technology is also to signify to oneself and to others one's membership to a particular section of society, to mark oneself as a participant in the tremendous changes taking place in society of which access to technology is one marker. (Dasgupta, 2002, p.122)

John Masterson's appraisal of *Goon Squad* identifies Bennie's attuning to the 'switch from analogue to digital' with a 'resulting airbrushing effect' as an alteration in, borrowed from Raymond Williams, the 'structures of feeling' that arbitrarily fashion periods (Masterson, 2016b). Masterson's image of the scourge of the twenty first century, the airbrush, is a captivating notion in this novel; a nebulized, superficial transformer of physical and digital matter. Geographers Michael Batty and Harvey J. Miller find the knotting of era and spatiality as a matter of the world shifting its axis from energy to information; and despite

Negroponte's claim that the internet resists a geopolitical reading, there is potential in the idea that geopolitics must recalibrate around virtuality. Batty and Miller claim that the concept and usage of distance is changing 'as it is complemented by near instantaneous transactions that dramatically distort the effect(s)... changing the traditional bonds that have led to the current geographical organization of cities, regions, and nation states.' (Batty and Miller 2013, p.113) A simple proposition that is difficult to disprove is that distance in its geographical sense is no longer an obstacle for verbal and visual communication. Approaching from the point of view of the social impact of the changing role of distance, Malachi O'Doherty defends social networks as being productive in closing the gap of intimacy. He argues that to reject them is to face 'increased alienation' and that rather than 'corroding relationships and turning us into people who can relate more to a screen than to a real face', (O'Doherty, 2010) supplementing your social life using these digital tools can enrich the experience of networking and forging relationships. *Goon Squad* is certainly an exploration of this possibility, and well as a challenge.

There is a sense of relinquishing and deference to the 'cloud.' Scotty Hausman gloomily muses on the uncanny abilities of the web to encircle even its most evasive target: 'if you can find Them, then They can find you, and I didn't want to be found.' (p.97) It is fitting that the novel culminates 'after two generations of war and surveillance' in a New York minded by ever-present choppers. Scotty's paranoid, anti-establishment mind-set throughout the text becomes a punch line as an affectionate characterisation of the punk movement he is stuck on. However, in the novel's resolution, or lack thereof, he becomes a beloved antithesis to the uses of the digital that have turned sinister. Pankaj Mishra identifies that '...the 1970s Bay Area musicians and groupies emerge as victims of a heartless utilitarianism that grinds down even the most 'alternative' forms of counterculture: they are pieces of socio-economic history, not merely personal mementos.' (Pankaj, 2011) The 'heartless utilitarianism' that powers progress is an enduring arc of the political landscape of the novel. Benny is in many ways a foil to Scotty; their lives

converge on the latter's rejection of this cultural and political opportunism, and the former's embrace of it. As much as technology has given us the power to revive old friendships and love affairs and lay our ghosts to rest, it comes at a price; a strange alteration in the usages and perception of others. Owen Sheers' 2015 novel, *I Saw a Man* similarly takes a dark look at the moral haze brought about by the distancing power of technology; equating to haunting effect action at a physical distance with a gap in personal responsibility. *I Saw a Man* unravels the aftermath of a drone strike made possible by GPS technology. An extraordinary passage sees the operator digitally trace a target via an exact, if obscured screen feed. He acknowledges the callous nature of his work:

...his wages and bonuses...were fuelled by deaths in faraway places, out of any conventional camera's focus...despite its 'fire and forget' name tag, once a (missile) had been released there would always be someone who never would. (Sheers, 2015, p.134)

Surely enough the operator's dilemma begins with the realisation he has killed innocent bystanders in the pursuit of the target, even having noticed figures on the fringes of the site: pushing the narrative into an exploration of the 'territory of the screen' in making snap value judgements on 'killable' bodies. (Derek, 2017) The novel underscores the mental severance between action on the screen and its consequence, or the 'real/unreal binary', and space at a remove that Egan edges towards. This idea of 'invented space,' where culture exists, enabled by technology pushes into even the most prosaic elements of routines. Zygmunt Bauman's study of cultural space in *Globalization* uses the development of perspective in art history by the Masters as an example of this, saying that its invention:

...took for granted the decisive role of human perception in the organization of space: the viewer's eye was the starting point of all perspective...(and) remained the sole reference point for the allocation of objects and space. (Bauman, 1998, p.31)

*Goon Squad's* own architecture uses technological advances as a constitutive principle to bring coherence to the characters. In the chapter 'Out of Body,' a peripheral character (Bix) marks when the digital becomes the placeholder of the novel's timeline; unlike Punk,

which as a movement seeks to destroy what has come before paradoxically organizes the first 'half' of the novel, the internet announces the intention of shelving and organizing time. Egan herself has traded tales of her experiences back-packing across Europe with journalists, noting the 'intensity to the isolation of travel' without the possibilities of latter-day technology: 'That feeling of waiting in line, paying for the phone, and then not only having no one answer, but not being able to leave a message so that they would *never know you called*. It's hard to fathom what that disconnection felt like.' (Brookes, 2011) The passage featuring Bix anticipates the final apocalyptic chapter, and indeed, Rob points out his aptitude for 'predicting the future' (p.196); firstly, for his observation that email will be bigger than the telephone, and that it will resurrect dormant connections. His second observation evokes the imagery of the Judeo-Christian vision of revelation and apocalypse:

I picture it like Judgement Day...We'll rise out of our bodies and find each other again in spirit form. We'll meet in that new place, all of us together, and first it'll seem strange, and pretty soon it'll seem strange that you could ever lose someone, or get lost. (p.209)

This recalls Foucault's notion of the 'heterotopia;' the space in which all culture exists which is a 'simultaneously mythic and real contestation of the space in which we live.' (Foucault, 1986, p.24) The novel thrives on this interplay of the conflicting models of 'being' in the digital represented by Scotty and Bix, characters who are made figureheads or prophets as the narrative unfurls. From the chaotic surface of the novel, to borrow an observation from Carol Greenhouse, the operation of the 'arrivals and departures' (Greenhouse, 2014) of its characters, it takes strides out of the disorder to provide a clear view. Not only is this an 'especially bold structuring device' per Gerard Moorey, it is an 'experimental structure (that) produces a complex prismatic conception of identity' (Moorey, 2014) that is decidedly timely. The dynamic emergence and silencing of the protagonist's voices is never clearer than in the opening and closing chapters; where Alex, Sasha's over eager one night stand who flits in the background of a moment of her crisis becomes a major player in what is not only the culmination of the anxieties and tensions of

the novel but a historic event of this imagined future, akin to Woodstock in its encapsulation of the culture and politics of its era.

### **Egan's Ecocriticism and Urban Planning**

*Goon Squad* and *The Keep* rely on using the breaking down of boundaries, forms, and narratives as a perversely organizing principle. If anything typifies Egan's work, it is the studied and meticulous fabrication of a sense of chaos. However, as much as she is interested in the architecture and building up of narrative, her work is enriched by touching upon an idea vital to understanding digital culture and the nature of progress itself; obsolescence. Returning to the deliberately anachronistic or time-jarring figure of Scotty, Egan sustains a connection between him and the stretch of land that 'might be called a beach' (p.211) between Williamsburg and Manhattan bridges. The connection is twofold. Firstly, just as Scotty is resistant to engaging with his present, the 'beach' refutes the changing laws of the metropolis. In the city, Scotty is hyperaware of the boundaries, both physical and conceptual enforced by the layout of the urban landscape; even 'his' chapter is called "A to B" to underscore this concern. He is both rejected by and rejects this system, perceiving that 'an infinitesimal difference, a difference so small that it barely existed except as a figment of the human imagination, between working in a tall green glass building on Park avenue and collecting litter in a park.' (p.98) 'no difference between being 'inside' and being 'outside,' that it all came down to X's and O's.' The shorthand used by Scotty to express these differences is significant. He makes an unconscious link between a rigid framework of how society works, and a suspicion of social mobility and fluidity, and information processes – to push it further, a binary code that has come to organize contemporary life, potentially for the worse particularly in urban spaces. Secondly the beach represents in its abject glory openness, or a refusal to conceal the ugliness of the whole. What washes up on the beach reads as Eliot's fragments 'shored against my ruins;'



the debris of formerly useful materials – broken glass, plastic bags, ‘splintered wood.’ By drawing attention to the detritus, Egan poses this question: what do we do culturally with the rapid accumulation of obsolete matter? This problem is one highlighted frequently in the work of Parikka, particularly in his 2015 book *A Geology of Media*, in which he situates discarded resources as a ‘conceptual bridge between the materials of chemical and metallic kind and the political economy and cultural impact of media technologies as part of the ongoing global digital economy discourses’ in the Anthropocene (Parikka, 2015, p.45). In *Goon Squad*, the obsolete similarly encompasses both culture and nature as a joint force. The near-future denouement of the novel reveals casually that ‘warming-related ‘adjustments’ to Earth’s orbit had shortened the winter days, so that now, in January, sunset was taking place at 4. 23’ (p.330) The euphemistic usage of ‘adjustments’ shows a cultural callousness, pushing away environmental responsibility that places human damage on the linguistic spectrum of technological or scientific progress; as if climate change is the great experiment of the age. Allison Carruth agrees, saying that:

The preponderance of ecological metaphors in how we speak about digital technology and networked computing masks, wilfully in some cases, what is an energy-intensive and massively industrial infrastructure. (Carruth, 2014)

It is a stark reminder of the environmental implications of the digital era; that the trade-off with constant connectivity is the constant demand for power: and furthermore as Parikka puts it, the ‘concrete ecological edge’ in acknowledging the ‘growing waste problem resulting from discarded media technologies.’ (2015, p.45). Prefacing a forum for the emerging digital economy in 2002, geographers Daniel Sui and David Rejeski warned about this double-bind: ‘Given the paradoxical nature of technological innovations, we want to caution the scientific community and policymakers not to treat the Internet as the Holy Grail for environmental salvation.’ (Sui and Rejeski, 2002), a rebuke that resonates with the work of Morozov against solutionism. The quandary of the environmental impact of the skewed, often wasteful materiality of contemporary life haunts the text. Moore’s

Law shapes the contemporary attitude to the environment and acts as a guiding principle of digital time (see the chapter on 'Duration'), that cycles of obsolescence and regeneration of transistor circuit-driven technologies occur in double time. At the time of writing, the concept of 'peak stuff' and the social trend of consumer minimalism has prompted a rethinking of goods consumption; partially inspired by the possibilities of increasingly portable technologies. (Cocozza and Jeffries, 2016) It is not by accident that the novel spans the peak and the rapid decline of the music industry, whose reluctance to adapt to digital technology and persevere with 'hardware' led to an almost total collapse of record labels internationally in the 2000s. (Witt, 2015) Scotty's comeback becomes a solution of sorts to this problem of obsolescence. His allure comes from the improbability of his success and 'disconnection' all 'ripped from the chest of a man you knew just by looking had never had a page or a profile or a handle or a handset.' (p.344) Moorey suggests that rather than a 'definitive "death" of rock and an accompanying collapse of the music industry (Egan suggests) a tentative rebirth, although on more modest and sober terms', (Moorey, 2014) arguably by equating its remaining hope with a deflated natural environment amid the city. Scotty's resurgence is likened to the force of his beloved, abject river: 'a swell of approval palpable as rain lifted from the centre of the crowd...it crashed against buildings and water wall and rolled back...with redoubled force.' (p.344)

The sway of the digital is strongest in the concluding chapter, 'Pure Language' – a misnomer given the fractures of language caused by new technologies detailed within it. The digital conversations between Alex and Lulu, in a similar way to the PowerPoint presentation, slow the cognitive processes of reading- both in Alex's own struggle to keep up with Lulu's meaning, and the reader's own understanding of this familiar yet alien configuration of language. The passage brings the collection to a close, both within the conventions of the novel and short story collection forms, and chronologically. The chapter defers to order, bringing the narrative full circle, as Alex resurfaces to draw together the final strands in the very place the novel opens in Manhattan. However 'Pure Language'

however markedly different to what has come before; not only is it the cut-off point timewise, being the tidemark of the experiences of the collected ensemble, but it integrates the genre conventions of speculative dystopian fiction. The references to the New York that have risen from the pieces of the turn of the millenium, post-9/11, post digitalization, post-recession create a picture of a quiet nightmare, interrupted by the decidedly human and 'analogue' concert. Egan's speculative vision of this undetermined time takes the themes of digitality to an understatedly grim conclusion – but insists on offering glimpses of hope. As Sherry Turkle claims, 'Virtuality need not be a prison. It can be the raft, the ladder, the transitional space, the moratorium, that is discarded after reaching greater freedom.' (Turkle, 1997, p.263) Egan allows for both readings. The younger generation of this time are scrubbed clean in every sense. They are conspicuously free of the body modifications and bad language that Egan satirically suggests embodies the earlier generation. The body of the future echoes its environment; cautious, mindful of the 'sagging' caused by the accumulation of time and wearied by constant threat.

The effects of this recognisable, yet changed world only slightly removed chronologically and technologically from its own time, with its gadgets and ways of communicating being all within reach are uncanny, and underscore the pattern of ever spiralling obsolescence and innovation. A brilliant example of this is Lulu's complacent explanation of current trends in marketing; 'No one says "viral" anymore. . . I mean, maybe thoughtlessly, the way we still say "connect" or "transmit" ...old mechanical metaphors that have nothing to do with how information travels.' (p.317) This view shows that 'connect' becomes, as mentioned previously, what Alex's wife fashions as a 'word casing' – the shell of a word shucked from its original meaning through falling out of usage, or what it signifies falling out of usage. What drives this imagined generation is their self-conscious remove from language, as if meaning collects as an epistemological condensation, then filters out through a language like precipitation. As Lulu points out, 'All we've got are metaphors, and they're never exactly right. You can't ever just *Say. The. Thing.*' (p.328) The conversation

between her and Alex; characters of a similar yet different generation (the viral generation versus the particle physics generation) gives a meta-textual frisson to 'Pure Language.' The analogies rolled out by Lulu could be used to describe *Goon Squad* as a receptive experience: '...reach isn't describable in terms of cause and effect anymore: it's simultaneous.' (p.324-5) The generations work through not only the web of meaning and understanding that characterizes their own era, but the problems thrown up by the complexity of Egan's structure. For Manuel Castells, technology's power over meaning is part of 'the historical emergence of the space of flows, superseding the meaning of the space of places.' (Castells, 1991, p.348) This changes the character of space from static to fluid.

The most striking detail of 'New' New York is the unstated but powerful 'omnipresence' of a surveillance force, left ambivalently unexplained. The novel pays attention to the soundscape of Manhattan. Thorough Alex's ears, we separate the layers of the 'omnipresent choppers' in the foreground from the white noise of the city: '...the rant of construction,' 'church bells, a distant drill. The usual confetti of horns and sirens' (p.321) to the human: 'a single cough, errant conversational strands.' Novelist Joseph O'Neill describes *The Keep* as a '*Shauerroman*' with a sustained 'compelling meditation on the relationship between the imagination and the captivities (psychological, metaphysical, and even physical) of modern life', (O'Neill, 2006) and it is not too much of a stretch to describe this final passage also as a prison text. Filtering the spaces and delineating boundaries in this way creates an atmosphere of tension, and gives this environment resonance with the design of the Panopticon. (See Ali Smith and Surveillance.) Through this audio mapping of the city, Alex laments the loss of precious personal space, of the intersection between one life and another offered by residential spaces, against this uncanny, tense atmosphere of surveillance.

The sense of watching is twinned with another ambivalent force that keeps the city in check; that of urban planning and development. Not only do the New York residents have

choppers to contend with, but also the ruthless developers, who in Alex and Rebecca's case plan to 'raze' the apartment in front of theirs to 'build a skyscraper that would seal off their light and air.' The 'city' of the novel, whether New York, Naples or San Francisco is in constant flux – in terms of population, aesthetics, architecture, and structures of feeling. The version of the city attached to Alex's time, that he has come to know so well appears to dissolve through the pages under pressure from the constant monitoring of the space and the threat of 'development.' In both *Goon Squad* and *The Keep*, the renovator is a sinister figure. The saviour figure Howard, rescuing the crumbling castle is also the aggressor of the novel; occupying the same role as those in *Goon Squad* snapping up footage in the city to build skyscrapers at the expense of those proven to have lost out economically. Egan makes this explicit: Alex contemplates how his disappearing 'wedge' of view '...had been a selling point...right after the crash.' (p.321) The 2008 global recession casts a shadow on the writing. It is a strange but fitting political point, after the widely-woven net of the novel's structure, that the buildings rising in this strange new world somehow make an aesthetic retreat into the pre-modernist spatial planning of the city by cutting off the life source of the buildings, and ghettoising existing communities. Indeed, the trophic gestures towards the dystopian novel underpin the politics of this final chapter. Commenting on the flourishing of utopian and dystopian cultural narratives under the influence of communications technologies, Jane Kenway voices a concern about the creation of 'new division in terms of 'information poor'; (Kenway, 1996) a division the digitally literate characters in Egan's novel are not subjected to, but in the broader terms of information and forewarning of their rapidly changing landscapes and lifestyles, it is indicated that the point of being cut off from this information is imminent.

Both *Goon Squad* and *The Keep* use the image of the wall to probe deeper into these political and philosophical concerns of being on the inside and on the outside. Scotty's consideration of the stone wall, 'a series of atoms and molecules combines in a particular way' that stands in both sense 'between me and those people inside the public library'

becomes an obsession. Gaston Bachelard points out that the division of outside and inside 'has the sharpness of the dialectics of *yes* and *no*, which decides everything;' and furthermore, prompts a way of thinking 'in terms of being and non-being.' (Bachelard, 1969) Being and non-being are simultaneous, to both Bachelard and Scotty, with being on the inside, and being on the outside. The linkage between the wall and the state of being spills over into *The Keep*; in true Gothic fashion, as the protagonist and the fabric of the text itself unravels, the walls of the castle appear more wrecked, ruined, isolating, covered in shadow, harder to scale. In interview, Egan explains that the interplay between outside and inside throughout the novel is upheld to '(pit) the isolated disconnection of the gothic realm against present-day hyper connectedness,' (Cox and Egan, 2010) It is a device also used to similar effect in DeLillo's *The Body Artist*; the physical and psychical walls of Lauren's isolation only part for glimpses of the outside world, and mainly through the computer screen. (DeLillo, 2001) Peter Boxall explains the usage of this spatial portal as '(speaking) for Lauren of the kind of melting of spatial and temporal distinctions that is a consequence and a condition of mourning...The internet, and the virtualisation of material conditions that it witnesses and enables, produces a kind of thin simultaneity, a condition in which it is possible.... to be 'here and also there.' (Boxall, 2006, p.222) The question of ownership and this economic stratification seeps into all elements of the future life; Alex's settled, resigned usage of the digital, which appears almost as a low thrum beyond the action contains the bargain that 'every byte of information he'd posted online (favourite colour, vegetable, sexual position) was stored in the databases of multinationals who swore they would never, ever use it – that he was *owned*...' (p.324) The shifts in the geography of the novel reflects the crisis point in the contemporary moment being explored by Egan. The movement towards a geographical marginalization of owned and rented space recalls Edward Soja's principle that crisis precludes the 'restructuring of capitalist spatiality': 'Like spatiality itself, geographically uneven development has

traditionally been seen as an external reflection of social forces, an illusive mirror of social action and the struggle of social classes.’ (Soja, 1989, p.163)

The image of the ‘network’ is a strong and immediate one; although the word appears just once in *Goon Squad*, it is impossible to look past the connotations of the ‘social network’ in its space making and delineation of spatial boundaries. Egan’s use of the network as a mode of organizing the text is both of its time, and places the novel directly in dialogue with the historical function of the novel. Typifying the ‘network novel’ in an essay on radical nature of Jane Austen’s placement of ‘households as hubs in a network,’ Nancy Armstrong and Leonard Tennenhouse discuss its trajectory: ‘the dispersal of the family, the collision of inconsistent types, and feelings that are not so much the products of one’s own interiority as the response to external forces.’ (Armstrong and Tennenhouse, 2015, p.311) At its core, *Goon Squad* treads the same terrain; the dispersal of the locus of narrative, and the character responses to changes in environment, hierarchy and relationships draw from the same novelistic tradition. Furthermore, Egan’s take on the tradition of the network novel expands to the central concerns of the original innovators of the novel itself; in Armstrong and Tennenhouse’s example, Samuel Richardson. Like Richardson, Egan poses the question of what happens when ‘a communication network that spreads along unpredictable and convoluted pathways...misaid, intercepted, misread, and responded to,’ replaces a conventional community. (Armstrong and Tennenhouse, 2015, p.313) Like the postal service, the telegram, and the telephone before, the wireless network becomes all at once a source of huge relief, and huge anxiety in its power to create and nurture, or alternatively destroy a network. Wireless technology for Egan pushes tenuous connections to their limit, but cradles support systems that have lasting power. Imagining the contemporary network novel after Egan, it seems that the trope questioning the wisdom of reviving lost connections digitally could become a hallmark of the genre. The sense of relative ease of tracking someone down, and an uncanny degree of foreknowledge and self-awareness that strikes such fear into Scotty; the sense that you

have the constant opportunity to reconnect with your network, rather than rely on chance. Joshua Meyrowitz characterizes pre-digital media as giving ‘ample reason to overlook the difference between physical places and social situations. Places defined most social information systems.’ Distance, for Meyrowitz was the ‘measure of social insulation and isolation.’ (Meyrowitz, 1985, p.116) As distance is subtracted from the equation of the contemporary network, the causes of isolation are less clear, but just as acute. In *The Keep*, Danny sees Howard’s scrabbling to mould a historically charged and difficult space into a luddite, commune-like haven; and dismisses his endeavours: ‘Power was lonely – that was a universal rule.’ (p.31) In the Egan universe, responsibility – whether for a space, a friendship, or a part of a narrative – is lonely, and almost impossible to share.

Both the reworking of physical space, and the reworking of the network in the novel intervene in the space making process; particularly the creation of the community. Arjun Appadurai’s work on the modernist project of apportioning space for communities claims these spaces are ‘characterised by their actuality, whether spatial or virtual, and their potential for social reproduction,’ and their opposite, ‘un-domestic’, non-neighbourhoods swept into ecological terms: ‘forest, wasteland, ocean or desert, swamp or river.’

(Appadurai, 1996) As far as this novel is concerned, these ecological terms could be mere ‘word casings’; the ecology of the book in the words of Allison Carruth provides tantalisingly ‘provocative correlation between climate crisis and the everyday habits of those privileged communities that spend the most time online, accessing vast global networks via ever-smaller mobile devices’. (Carruth, 2014) Appadurai’s thesis that the production of locality is relational and contextual, not scalar, or spatial is essential to understanding how to reconcile that complex network of Egan’s works. The meaning of Appadurai’s terms such as ‘local knowledge’, ‘reliably local subjects’ and ‘reliably local neighbourhoods’ lose traction, and this slippage calls into question what kind of community is able to emerge in the digital novel. (Appadurai, 1996) Consider Alex’s creation of his guest list; pulled from a list of ‘15,896’ friends. His method of dividing them



is distinctly digital; not by their geographic location, those who would be likely to get there or happen on the concert, but in abstract terms of 'Need,' 'Reach,' 'Corruptibility' – the power of their visibility and their network (and predisposal to take bribes.) This guest list is a good example of a network gone rogue, where the organizing principles are less about communities and the transfer of information than benignly callous teleological usages. Foucault 's own vision of networked space reflects this anxiety over the usage of space, showing that:

This problem of the human site or living space is not simply that of knowing whether there will be enough space for men in the world...but also that of knowing what relations of propinquity, what type of storage, circulation, marking, and classification of human elements should be adopted in each situation to achieve a given end. Our epoch is one in which space takes for us the form of relations among sites. (Foucault, 1986)

In Egan's own vision, a hierarchy of 'good' and 'bad' usages of space and networks is present. The apex is the sharing of space between Scotty and the concert-goers, his connection made more meaningful by his 'disconnection' which 'now registered as pure.' (p.344) Scotty is the only character in the fold who challenges and confronts the role of space and placement, somehow giving him the power of 'true' connection.

The possibilities of analysing and mapping environments in the digital era are boundless; from the monolithic machinations of Google Earth, to localised endeavours with GIS technology to analyse Romantic texts in the Lake District. (Gregory) However, in every attempt to map out the world, there is a necessary element of failure. Tom McCarthy's introduction to a volume on contemporary cartography proclaims 'maps don't work, and never have', due to the fact that 'Projections are not neutral, natural or 'given'; they are constructed, configured, underpinned by various – and quite arbitrary – conventions... all maps carry with them a certain claim; that this one is somehow truer than the others with which it competes. ' (McCarthy, 2014) Egan's previously noted ability to create the illusion of chaos, and yet rein in the threads of her narrative under one unifying whole dramatizes

the elaborate construction of 'the map.' The map links characters, places and themes, but always recognizable in this guise. The final chapter earns its richness in meaning as the coda of the novel, by revealing the organization of the whole. This vantage makes visible the orbit of the characters and the true shape of the divided novel; the 'first' generation of characters drifting, pushing their own spatial boundaries, and the 'second' trying to settle, yet passively pushed away from their natural locus. The metropolis becomes a powerful organizer; in a sense authoring the narrative of the individuals. The image of Alex, staring at his disappearing cityscape a way into the twenty first century contrasts with the great image of the open city skyline popularized at the Modernist early-twentieth. Where Hugh Ferriss can stand, and wonder at his ability to see '...on a close scrutiny of the streets, certain minute, *moving* objects can be unmistakably distinguished. The city apparently contains, away down there – human beings!" (Ferriss, 1929/2005, p.16), Alex gleans 'dread and gloom' from his 'sliver of sparkling night.' (p.322) By dwelling on the aesthetics of city architecture, Egan invites these comparisons with the modernizing figures such as Ferriss and Le Corbusier; reflecting on the anxieties and excitement of organizing a population, albeit a fictional one. The sense of scale and incredulity that is typical of the discourse of Modern urban planning when considering the challenges of volume applies equally to the vastness of the digital world that shadows Egan's novels. The same division between the utopian urban planners and those writing in protest of the sprawling and previously inconceivable layout of the megacity exists in those who see potential for progress, and those for harm in immersing oneself in the digital world. James Donald fashions the concept of a 'City' as purely 'imagined environment... shaped by the interaction of practices, events and relationships so complex that they cannot easily be visualized.' (Donald, 1992) Donald raises the point that this is precisely why the City works so successfully in the collective imagination as pure metaphor (one example he gives is as a machine), and can be 'animated by myth and peopled by symbols such as the *flâneur*, the prostitute the migrant, the mugger.' (Donald, 1992)

Egan's imagined cityscape is made up of digitized co-ordinates, detritus, arbitrary boundaries, and networks that at any moment can be prized away from physical order, and shuffled by their abstract qualities. On one hand, the creation of such a world is, as proven, a novelistic sleight of hand. On the other, it reflects the connected world. In the image of the miles of solar panels in the desert in 'Great Rock n Roll Pauses' and the collection of refuse on the city beach, we see evidence of the compromise made to enable hyper connectivity. Timothy Luke's ecocritical work on the influence of power structures on our collective vision of environment draws out a concept of nature turning into 'denature', no longer being 'a vast realm of unknown, unmanageable, or uncontrollable wild nonhuman activity'. (Luke, 1997) The novel makes that conceptual leap, from environmental disinterest to highlighting these concerns; the 'managed range' made possible by urbanization becoming responsible for a list that for Luke includes the modification of atmospheric chemistry' and the 'restructure (of) weather events'. Architecture itself is charged with '(enclosing) whole biomes in sprawling megacities' and biotechnology with '(reengineering) the base codes of existing biomass.' (Luke, 1997, p.195) Progress has a price, and every act of denaturing, of reimagining the environment, chips away at its core self. Guy Debord, writing in the twentieth century amidst the creation of the sub-urban environment that collapsed the countryside and city divide, similarly examines the human project as at once con and de-constructive; claiming that 'Economic history, whose entire previous development centred around the opposition between city and country, has now progressed to the point of nullifying both.' (Debord, 1983, p.175)

*Goon Squad* concludes with Alex's fantasy of time looping gently back around, to another girl's high heels clicking towards her apartment, part of the music of 'th hum tht nevr gOs away' (p.348), the hum that tries to bring the characters to order, in a way that mimics telecommunications. In both *The Keep* and *Goon Squad*, there is a palpable sense of possibility for the human imagination in the digital era. The increasingly portable

technologies for networks are not just treated as novelty items for the time that will pass, or mere organizational aids, but extensions of the human anatomy. Her humorous image of babies pejoratively called 'pointers,' born into the power to impulsively buy obscure album tracks, and 'attached to 'GPS systems for babies just learning to walk' nod to post-human imaginings of digital life; an image that is less *Blade Runner* and more akin to Danny scrambling for his phone in terror of being out of signal range. The word 'pointers' gives a hint of unpredictability, with an inbuilt sense of imperfection or humanity. Literary and Jazz critic Ted Gioia fittingly comments on the rhythms of the novel, describing *Goon Squad* as belonging to a set of novels that seeks 'an exemplary wholeness, a fitting together of the fragments into brilliant patterns.' (Gioia, 2013) Egan's fiction is a way into understanding the collective imagination of the wireless world by showing where it is radically different, and where it has remained the same.

Both novels gesture their construction throughout, most strongly in terms of their location. Andrew Gordon and Bernhard Klein claim that a 'cartographic image is revealed as more than a mere functional tool, or neural scientific records, emerging instead as a crucial representational site of cultural and historic change.' (Gordon and Klein, 2011, p.3) In *Goon Squad* it is characters navigating their ever-fluctuating networks, and in *The Keep*, a frustrated effort to give any exact location at all; Danny and Howard ever reaching for a 'map. A clue. A key' (p.49) that eludes them. To echo Tom McCarthy's sentiment, a map is always a failure, and a cognitive map – something that echoes the epistemological process of localization – could be the closest solution. In this sense, a map is a metafiction; a fictionalisation of space that in its appearance and usage manifests its own status as imperfect approximation. The digital map similarly creates an imprint of what John Berger calls 'the world-as-it-is': 'more than objective fact, it includes consciousness', (Berger, 2008) just with added 'functionality'. *Goon Squad* and *The Keep* foreground anxieties in the twenty first century about borders and the threat to freedom aggravated by an increase in the virtual visibility of these spaces. Egan finds why exactly the digital citizen should be

thinking about space making and where they find themselves with a great deal of subtlety. The novels question the validity of the fictions that are put in place by maps and spatial planning: what purpose they do serve and who do they marginalize? In conclusion, by foregrounding the epistemological constraints implied by our surroundings, what can be known and what gets in the way of knowledge, Egan invites a rethinking of fictional space in the era of digital intersubjectivity.

### **Duration: Tom McCarthy**

At the moment you are no longer an observing, reflecting being; you have ceased to be aware of yourself; you exist only in that quiet, steady thrill that is so unlike any excitement that you have ever known. (Sinclair, 1915/2010, p.13)

Modernist writer May Sinclair identifies two registers of time; the state of ‘reflecting being’, and the state of non-awareness, which is being swept into what neuroscientist Ernst Pöppel termed ‘elementary time experiences’. (Pöppel, 1978) Entering the ‘quiet’ – the unrelational state of temporal consciousness has a long history of fetishization, best illustrated currently by trends including reviving the ancient practice of mindfulness and rebranding it to counteract the stresses of twenty-first-century life, (Kristensen, 2018) and digital detoxing and disconnection. (Hesselberth, 2017) The more companies continue to capitalise on the attention economy and profit from distraction, the more alluring the sense of untimeliness becomes. Technologies initially developed to enable spatial and temporal freedom are now rigged to capture notice with haptic and optic tricks that nestle into the wirings of the brain, and need a near constant flow of availability. The processes of automatic self-archiving that appears to be a necessary part of engaging with twenty-first-century technology makes it difficult to reach the sense of non-awareness treasured by Sinclair. Hayles notes that at this point in time, ‘technical objects are...seen in evolutionary terms as repositories of change and, more profoundly, as agents and manifestations of complex temporalities.’ (Hayles, 2012, p.85) It is within this fraught and contradictory space of polytemporality that novelist Tom McCarthy thrives.

*Remainder*, (McCarthy, 2011b) *C* (McCarthy, 2010) and *Satin Island* (McCarthy, 2015c) are underpinned by a dilemma of how to articulate time where the deluge of history and the dizzying recorded present meet. McCarthy’s enthusiasm for literary recycling frames this dilemma. A deeply allusive writer, he has stated his admiration for writers like Burroughs

and Pound who advocate borrowing, or outright stealing from other writers. (McCarthy, 2011a) He has dismissed a liberal humanist, 'regressive', 'conservative' tendency in contemporary fiction (2010, 2010) of emphasising the novel as a romantic expression of self, favouring instead the methods of the materialist avant-garde in fictioneering. In McCarthy's case, there is little to be sceptical of in his remarks on his writing process, as they are entirely consistent with his resulting novels, in which his allusions are explicit and often brazen. There is an inherent resistance to the grain of his time that is strikingly in line with Agamben's criteria for 'the contemporary', particularly in his writing's 'dyschrony'. (Agamben, 2010) Like Smith, Egan, and Coetzee (who I would categorize too as true 'contemporary' writers in Agamben's terms), McCarthy brings a sense of engineering to the novel, presenting it as a feat of technology; a summation of parts and mechanisms, which informs the mathematical quality of the prose, and the nightmarish yet alluring imagery of the human becoming automaton.

In an essay on the future of the novel, Zadie Smith claimed *Remainder* to be an example of where the form could be headed. She identifies its desired narrative state as the 'emptying out of interiority', upending the conventions of humanist literary writing of highlighting interiority's importance. (Smith, 2011b) This chapter will examine how McCarthy achieves this, which is by breaking down the communication between body and time. The novels named above all feature central 'characters' around whom events accumulate and crystallize: trapping them in a state of paralysis and decline. The skeletal 'plots' are simple: three focalized subjects (*C* in third, *Satin Island* and *Remainder* in first person) obsessively quest for the attainment of something unnameable, and impossible to fulfil, until a reckoning comes replete with destruction or failure. They are more like ciphers than conventional protagonists; absorbing codes and structures of meaning to guide action. Pieter Vermeulen describes McCarthy's works as 'attempts to map the paradoxical remainder of the genre after everything novelistic has been subtracted from it', listing the features gleefully stripped out: 'plot, character, readerly empathy and sentiment, social

vision and psychological depth. ' (Vermeulen, 2012) Examining McCarthy's take on the stripping away of subjectivity brings into focus wider concerns of the marginalizing trajectory of toxic digitality. McCarthy's vision of the 'neutral' subject is troubling: they share broad characteristics of whiteness, cis/hetero masculinity, and middle class concerns. McCarthy's writing reinforces, without critique, assumptions of the digital subject. In contrast to the self-aware and critical figurations of privileged identity in Coetzee, for example, McCarthy's lack of interrogation of these assumptions marks a severe weakness in his automated subjectivities. The novels all centre around the elusive 'great event' that destabilizes these actions; and the tension and engagement comes with how things fall apart. At the root of this is the sense that technology has deeply disturbed experiential time, in McCarthy's usage a neutral observation, and in tandem has intervened in fictional time.

### **Granular Time and Buffering**

McCarthy's fiction and his installation art, which frequently intersect, as in the case of an exhibition timed with *Satin Island's* release (McCarthy, 2015b) invests in the power of time-distortion; achieving its greatest potency when aided by technology. *Greenwich Degree Zero*, a project with Rod Dickinson was inspired by a real plot to blow up the observatory at the site of Meridian Line then fictionalised in Joseph Conrad's *The Secret Agent*. The project speculated on the impacts the explosion would have had if it had been successful. (McCarthy and Dickinson, 2006) The project recreated film, newspaper articles and photographs using techniques in use in 1894, with the present day materialised in headphone narration. McCarthy tunes in to the possibilities of 'chatter' as a time-shattering construct that crescendos from the prizing open of mass media, taking influence from T. S. Eliot. In *The Wasteland's* 'A Game of Chess' the interjection of the prompting



refrain 'HURRY UP PLEASE IT'S TIME' acts as a bar in the erratic time signature of clashing voices; the reminder of time as an order to be challenged and baited. (Eliot, 1922/1999)

There is nothing new in the sensationalisation of current events or of divisive rhetoric and reception and the chatter that carries across national borders, but the twenty-first-century chronology of information flows is radically different from earlier periods. The shift in chronology has prompted such a reaction, that fields of study have emerged to accommodate research being done on the psychological impact of the constant roll of the kind of breaking news that has transcended institutional boundaries. (Piotrkowski and Brannen, 2002) In *Remainder*, telecommunications are referred to modestly as a 'very promising sector', but technological penetration also has the power to enable 'more imaginary futures to open up', directly linking the 'sector' to the composition of futurity. So-called digital natives are more likely to catch up with the news on social media than on any other medium, including TV, radio and the newspapers; and media outlets (Veinberg, 2015) particularly the latter are striving to mimic the interactive features that social media provides. Social media is distinctive in its delivery as it is unregulated and fast to issue. A report written up on a newspaper's website, or broadcast on a news channel has an inherent delay and amount of processing before it is shared; this barrier does not exist in a tweet or a live video. This has shaped the discourse of the twenty-first-century spread of information in fusing the machine and the organic- the infinitesimal distance from conception to reception. As discussed, Jennifer Egan draws on the power of the 'viral' as an image, and the machinations of the international network, and McCarthy reinforces this usage. Serge, the focal point of *C* is born while his father experiments with late Victorian wireless technology; the father envisions '...a web around the world' of pure signal. Contrarily, devices that enable polytemporality encourage users to see things at a particulate level. There is a sense of disembodiment in adjusting to the fluctuating scopes of time 'digital flow' creates; the disjointedness of the gap between raw experience and consigning these experiences to personal history through reflection and analysis, and then

the vibrations of this archive. Serge absorbs his father's obsession, and as a teenager builds his own receiving station, with copper wires threaded through the garden. He listens into the static, until the 'headphones come to life' with press digests, sport scores and sea forecasts. These 'Wireless ghosts' parade through the headphones and move the dials hypnotically until 'they seem to contain all distances, envelop space itself, curving around it like a patina, a mould...' (p.67) Abha Dawesar expresses ambivalence about the all-consuming nature of our portable technologies, but finely identifies the problematic heart of our altered conception of time facilitated by the digital 'now':

(The) smallest measure, the moment, has shrunk...because our instruments enable us in part to measure smaller and smaller units of time, and this in turn has given us a more granular understanding of the material world (which) has generated reams of data that our brains can no longer comprehend and for which we need more and more complicated computers. (Dawesar, 2013)

This dilemma is central to the so-called Koob-Sassen project of *Satin Island*, described by one reviewer as a 'supragovernmental conspiracy concealed by its very pervasiveness', (White, 2017) a global, current, anthropological study of social and symbolic structures commissioned by a powerful corporation, which is described vaguely as 'Not just a book, *The fucking Book*'. The corporate anthropologist (called U) compiling the dossier ecstatically leans in to the screen-lit, technophilic mania of his surroundings, outlining rhapsodic fantasies about the origin of its power, and most particularly, its excessiveness:

I'd spend long stretches staring at the little spinning circle on my screen, losing myself in it. Behind it, I pictured hordes of bit and bytes and megabytes, all beaver away to get the requisite data to me...I pictured a giant uber-server...stacks of memory banks, satellite dishes sprouting all around them, pumping out information non-stop, more of it than any single person would need in their lifetime... (p.67-68)

This offers a stark model for Dawesar's granularity, beginning with that ubiquitous 'buffering' sign and stratifying out into the atmosphere, taking in the full extent of how our environment has been transformed to accommodate data, and will keep transforming to

satiate an increasingly rabid demand for speed. There again is a naturalising process in the language of these interventions: 'beavering,' 'sprouting,' 'pumping out' situates the technologies in the organic order. He finds the 'bottomless and inexhaustible torrent' of data not only 'reassuring,' but 'sublimely' so. The flow of digital information, U suggests in this passage, is the pinnacle thus far of myriad modernising technologies; both 'natural' and life-enhancing; but as the project progresses its limitations become obvious. The most prominent by-products of the overwhelming nature of digital flow in McCarthy's writing are trauma and inauthenticity, which I will come back to.

The mere image of the loading bar or rotating cursor may provoke mass anxiety, but as a visual representation of digital time, it has much to offer. Indeed, buffering comes to occupy a lofty position as a defining phenomenon in digital time in McCarthy's work. Buffering is an admission of limitations, stalling, eking out granular units of time, but is also a soothing graphic of what is to come. The anticipation that buffering entails becomes a wider model for living; U and his colleagues suffer '...frequent bouts of buffering' (p.67) that cause office-wide symptoms (yet another seepage of technology into the body) of swearing and shouting – a visceral reaction to delays in the relaying of information that forces a pause in the expected flow of time, and therefore offering a moment to notice duration.

U clings to the image of buffering as he becomes increasingly overwhelmed by his project, and sliding into apophenic thought for the respite it offers him, and wonders if it should be his next project. A ringing refrain offers that 'Everything becomes buffering, and buffering becomes everything' in *Satin Island*. U dwells on it as an analogous image for how 'time and memory work.' In his understanding of a buffering existence, we need to 'stay ahead, if only by a nose, of our consciousness of experience' to be able to 'interpret, narrate' experience itself, claiming that when the 'narrating cursor catches right up with the rendering one, we find ourselves jammed, stuck in limbo.' (p.69) In interview, McCarthy drew attention to the 'unresolvedness' between the "it" and the fiction' in buffering, where

there is 'something not quite rendered.' This draws on the work of Henri Bergson (whom McCarthy has claimed as an influence for *Remainder* especially) on 'real duration.' U's dying colleague Petr reflects on his life, regretting that death leaves you with 'no one to tell about it.' He explains he has 'lived significant events in terms of how I'll tell people about them. What I mean is that even *during* these events I would be formulating, in my head, the way I'd describe them later.' U's Kittlerian response, that goes unheard names this as a 'buffering' problem. An association is formed between the articulating space of post-experience and the concept of writing; U and his colleague show a compulsion to process and narrate experience. The narrator of *Remainder* (who is unnamed, so for clarity's sake, I will take the same liberty as Omar Fast's film adapted from the novel, and call him Tom) (Fast, 2015) cannot trust memory to log details; so 'safeguard(s) them by sketching them out...drawing diagrams, plans, layouts of rooms and floors and corridors,' in a desperate attempt to lock experience. Bergson's theory of time draws the same distinctions between affect (quality) and representation (quantity) and perceives that:

...intensity is situated at the point where two currents meet. One brings us the idea of extensive quantity...from the outside. The other has gone to the depths of consciousness.... It remains to be seen just what kind of image this is, whether it can be identified with number, or whether it is something radically different. (Guerlac, 2006)

A favourite of the Modernists and particularly *en-vogue* at the beginning of the twentieth century, Bergson's thesis *Time and Free Will* works actively against the possibility of an increasing automation of thought and progress, positing the measurement of the intensity of experiences in degrees of difference as detrimental to duration. (Bergson, 1910) There is a wryly materialist denial or interruption of consciousness at work in these novels that matches with the above exchange between Petr and U – a human failing measured against a material error, a final reflection on a life reduced to a systematic problem.

### **The Body, the Machine, and Traumatized Time**

McCarthy's cypher-characters belong in the world Samuel Weber describes, in which 'the being of human being has had more to do with setups and sets than with subjects and objects, unified in and through self-consciousness'. (Weber, 1996, p.7) I discussed U's affinity with the artificial additions to the environment, and his overwhelming response to what the spinning circle represents, and the sense that it has been built for him. In *Remainder* this is literally the case, as Tom has elaborate sets created for him to unroll his 're-enactments.' Tom is seriously injured when struck, full force, by a falling object at the outset of the novel, and is offered generous compensation. He reflects on his hospitalisation:

As I lay abject, supine, tractioned and trussed up, all sorts of tubes and wires pumping one thing into my body and sucking another out, electronic metronomes and bellows making this speed up and that slow down, their beeping and rasping playing me, running through my useless flesh ... this word planted itself in me and grew. Settlement. (p.6)

His life-support system absorbs the functions of his body; altering its environment and attuning it to a new time signature, taking his body beyond the human. In response, when once again mobile but transformed, he too adjusts and manipulates events around him to conform to a jarring new order as a backlash against the compromises made on his body. The prospect of the money builds itself into his recalibrating nervous system, and a wandering 'splinter of bone' that travels inside his body following the accident adds to these abject fragments. He no longer trusts his memory: he has 'half-impressions' of 'the event' but is unsure of their accuracy: '...who's to say that these are genuine memories? Who's to say my traumatized mind didn't just make them up, or pull them out from somewhere else, some other slot, and stick them there to plug the gap – the crater – that

the accident had blown?' (p.5) The use of 'trauma', the origin of which is 'wound', is key to note. (March 2018) The slow, insidious revelation of the novel posits that despite having undergone extensive physiotherapy to coax his body and synapses into cohesion once again to move, its neuroplastic resetting has failed, and he can only relate to his body through absences: 'gaps', 'craters' and other sites of rupture. He keeps a fraught relationship with the technologies that enable his delusions; all of which create a complex tapestry of watched time as both a commodity and a foe. His repeated insistence on 'no cameras, no filming' underscores this paranoia. He reroutes the unseen forces of technology – the headsets, emails, phone calls, texts, that have made his plans come together need to feel like his own god-like force. In Jaron Lanier's words, a 'digital network by its nature must constantly adapt to flaws and errors by routing around them.' (Lanier, 2013) This understanding is fundamental to how digitality is working here.

His precarity and unease in a body he cannot relate to, he tries to overrule the constrictions of time in frustrated attempts to redefine 'authenticity' in temporal experience with reconstruction and repetition. The shorthand for his attainment of this is 'weightlessness' – he strives to become as phantasmic as possible; which marks another of McCarthy's obsessions. Tom's frustration with the weakness of his tissue leads him to reimagine a more automated life. In Heinrich Von Kleist's 1801 dialogue 'On the Marionette Theatre', (Kleist, 1801/1972) the writer debates with a principal dancer friend the advantages of puppet movement. The dancer explains that the marionette is without 'affectation': that the concentration of tension in the string or wire leads to pendulous limbs that exceed the grace of the professional dancer, whose locus of movement changes in extension. He suggests that the same effect could be reached in the mechanical manipulation of the doll. Unburdened by consciousness, the argument follows that the dancer envies the marionette's movements, and suggests that the human body should aspire to this state of being. Consider Hoffman's depiction of gothic literature's most

celebrated automaton, Olimpia in 'The Sand-Man;' whose beauty and allure is accentuated by her uncanny appearance:

The eyes alone seemed to him strangely fixed and dead, yet as the image in the glass grew sharper and sharper it seemed as though beams of moonlight began to rise within them; it was as if they were at that moment acquiring the power of sight, and their glance grew ever warmer and more lively. (Hoffmann, 1816/1982, p.110)

Kleist's friend explains that consciousness, or particularly self-consciousness causes 'disorder.' The dancer concludes that 'contemplation becomes darker and weaker in the organic world,' and that grace 'appears to best advantage in that bodily structure that has no consciousness at all – or has infinite consciousness – that is in the mechanical puppet, or in the God.' (Kleist, 1802/1972)

The only conclusion for this unconscious being in the human, and for Tom, is death.

Frequently touched upon in interviews and critical material on McCarthy is his tongue-in-cheek project with ethicist Simon Critchley, the 'International Necronautical Society,' which he has described as a homage to the avant-garde groupings of the twentieth century, such as the Dadaists and Situationists, and a nod to the bureaucratic fixations of favoured authors like Kafka. An INS manifesto proclaimed: 'We will chart (death's) forms and media: in literature and art, where it is most apparent... We shall attempt to tap into its frequencies - by radio, the internet and all sites where its processes and avatars are active.' (McCarthy and Critchley) The manifesto plays with a hypothesis that all technologies, especially writing try to cheat death; animating death's 'avatars.' True to the words of the INS, death is an obsession in McCarthy's oeuvre, for example Tom's narrow escape that turns out not to have been an escape at all, and Petr of *Satin Island* suffering a demise that U's mind accentuates his failures to capture a rapidly disappearing world. C's cacophonic imagery of machinery, esoterica and the confrontationally material stands for a fixation with death and the end of eras. The texture of the prose pays tribute to the great high Modernist excavators of lived time, such as Joyce and Woolf, examining the

creeping effects of wireless technologies. The novel ends in 1922, a year that saw the publication of *Ulysses*, *Jacob's Room* and *The Waste Land*, the death of Marcel Proust, and the discovery of Tutankhamun's tomb: situating it at a cataclysmic point in cultural history. The Carrefax patriarch is an electrical engineer (in fact a fictional rival to Guglielmo Marconi) who passes on the spirit of scientific enquiry to his children, Serge, and Sophie. In parallel with his inventions he runs a school for deaf and mute children. The wax disc that plays the phantasmic voices of Carrefax's mentees has a catalysing effect on Sophie and Serge's ambitions: 'Often when a disc has come to its end, they let it run on, playing and replaying the same stretch of silence . . . which in fact is anything but silent, bursting as it is with a crackle and a snap...' (p.43) This sense of reverberation beyond a finite stage is also the central hook of *Remainder*. The title itself the most immediate clue to how the novel dodges chronology, in thrall to the Kafkaesque threats around and inside Tom, represented by the 'remains' of his neural state. *Remainder* is close in spirit to May Sinclair's *The Life and Death of Harriet Frean*, which also features a deluded protagonist who wilfully obstructs her relationship with time. Time offers Harriet '...no clear illumination, only a mournful acquiescence in her own futility, an almost physical sense of shrinkage, the crumbling away, bit by bit, of her beautiful and honourable self.' (Sinclair, 1922/2003, p.148-9) Her life-project has been the rejection of the intricacies of life in the disguise of 'principled' self-denial; an interesting counterpoint to Tom's self-indulgence, with the perverse effect of the half-life, the half-narrative. He speaks with a kindred grandiosity; but refigures a gradual 'crumbling' as a transubstantiation. His first run of his block of flat's re-enactment makes him feel 'like an astronaut taking his first steps – humanity's first steps – across the surface of a previously untouched planet.' (p.133) An action he's performed countless times, of walking in a corridor takes on a new, almost alchemical materiality under his instruction, the floor is 'silently zinging with significance', the granite 'seemed to emit a kind of charge, as invisible as natural radiation', the stairs 'glowed with a dark, unearthly energy...' (p.133) The setup of an unstable new millionaire



hiring people to perform prosaic tasks, purchasing property, bribing authorities and sacrificing roof-jumping cats at the service of recreating images generated by head-trauma is ludicrous, but in Tom's mind the enterprise deifies him. His surroundings emit the 'buzz' of the future; his talk of the moon landings levels him with pure progress; in his mind, he tests the limits of what the human can be; and by revelling in the 'significance' of his project, he can quiet the spectre of his own frailty.

Of all *C's* settings, the most striking is Serge's childhood home. McCarthy has claimed that *C* is his 'German' novel, due in part to the influence of Freud's work on trauma, which is distilled into the Gothic presentation of the goings-on in the house and its effect on the later structure of the novel. (Kelly and McCarthy, 2010) Serge's enclosed childhood makes a determined and often unwelcome reappearance in his later breakdowns and delusions. Barbara Black noted of the novel's temporal setting: 'Looking back through this sharp prism has an eerie feeling of looking forward at ourselves', and this doubling of time is certainly one of the novel's most striking features. (Black, 2011) Traumatized time is the space in which that which is undealt with repeats in increasingly obscure ways. Cathy Caruth sees trauma as '... not locatable in the simple violent or original event in an individual's past, but rather in the way (of its) very unassimilated nature.' (Caruth, 1996) The potentially traumatic (in the general sense) events of Serge's early life, such as the sudden death of his sister resurface in unrecognisable guises, including fever dreams of living machines and tantrums over malfunctioning technologies. As Caruth suggests, traumatized time operates by concealing 'truth, in its delayed appearance and its belated address' which 'cannot be linked only to what is known, but also to what remains unknown in our very actions and our language. (Caruth, 1996) Irresolution and 'Afterwardness' (Freud, 1959) is built into *C's* syntax.

His childhood house and grounds are an incubator for technology and organic life; and in Serge's imagination the two are indistinguishable. His family continues the work of their ancestors in breeding non-native insects in an ominous hatching room and the gardens.

The uncanny manufacturing of insect life Serge watches as a child impresses him with a matter-of-factness and sense of bodily utility. He watches workers handling pupae and insects, most strikingly a harvest of moth eggs which impresses upon him a mechanized approach to creating life, which ends when the laying ends with a moth is unceremoniously 'picked up for a final time and cast onto the floor to die while a new moth is introduced into the box to begin laying in her place.' (p.28) At the same time, there is an ever-present electrical hum in the air around the house, from a colony of bees and the wires, a trademark hum of futurity in McCarthy's work. His early exposure to the concept of science and technology being able to create and manipulate life enables Serge to imagine how he might put this knowledge into practice in a very adult way. His father is a consummate engineer and problem solver – with twin obsessions of teaching deaf child to talk, and the invention of wireless communication. The house and grounds teem with copper ropes to the latter end, emitting a powerful hum. An open day for his school reveals a single-minded vision of the world as a matter of tinkering with the machine. Carrefax senior claims that muteness is merely 'a lack of proficiency' in the skill of speech, which 'must be wrung' from the body, with 'the mechanical result of certain adjustments of the vocal organs.' He explains: 'The body's motor must be set to work, its engine-parts aligned, fine-tuned to one another.' (p.16) He goes on to liken the vocal systems of the body to wind instruments, speculating that to solve muteness, one must restore 'to the deaf child the function of his pipes and all their stops: the larynx with all its valves; the timbre-moulding pharynx.' (p.17) What this creates in the text is the sense of the body as a site of displacement. The body appears to be autonomous and cohesive, but in fact is animated by more aggressive forces fighting for dominance; a ghost in the machine making room for another ghost. The Carrefax men have a conversation about radio signal; the father advocating a theory of brainwaves being able to travel like signal; and Serge rejecting this quasi-mystic stance:

“Things move around, accumulate in ways we can’t anticipate. Besides,” he continues, eyes still on the needle as he takes two paces forwards, “I’m not even claiming that it’s radio per se that we’re detecting here.”

‘What else could it be?’ Serge demands to know.

“I refer you back to what I said about the body and its discharges,” his father tells him. “If the ones emitted by the brain are anything like the wireless waves that wend their way around the earth, they’ll leave a trace for a considerable time after their creation.”

“But that doesn’t work,” Serge says. “Transmissions travel. They go somewhere else and then they’re not here anymore.” (p.197)

Serge’s field of choice, working on the establishment of Empire-wide telecommunications deepens this obsession with the rerouted body. The etymological roots of the word telegraphy offer a tantalising way of thinking about time and communication; formed by the Greek words *τήλε*, meaning ‘far-off’ and *γραφία*, loosely meaning graphic representation. (Editors, 2018) *C*’s structure reflects the ascent of wireless technologies in the modern telegraphic period.

In an interview that took place fittingly at the BT Tower with *The Telegraph* to publicise *C*, McCarthy declared a view that ‘We exist because we are awash in a sea of transmission, with language and technology rushing through us’. (Robey, 2010) His interviewer seized upon this declaration as testament to the author’s love of the works of Jacques Derrida, and the decidedly continental tenor of his writing. Indeed, the novel at times offers a prismatic reading of the central thoughts of the philosopher on telecommunication. The novel is saturated with telegraphic possibilities; deconstructing the areas of written communications defined by Derrida as pictographical, hieroglyphic, ideographic, phonetic and alphabetic. (Derrida, 1988) Derrida’s sub-chapter on ‘Writing and Telecommunication’ in his late work *Limited Inc.* encourages doubt about the homogeneity of communication. He analyses the structure of written communication, predicating an absence of a known receiver ‘to gain or save the most space and time possible by means of the most convenient abbreviation.’ (Derrida, 1988, p.4) He stresses the ‘representational character’ of writing, calling it the ‘invariant trait of all progress to come,’ and in terms of an increasing cultural reliance on the suppletion of presence through representation, this leaves a sense that

the original system's essence is mysterious. Subscribing to Derrida's theory of communication means accepting a fundamental absence; that any given sign 'possesses the characteristic of being readable even if the moment of its production is irrevocably lost.' (Derrida, 1988, p.9) Derrida's works clearly appeal to the writer who is 'happily obsessed with the notion that literature, like all forms of transmission or communication, is inherently occulted and cryptographic'. (Hart *et al.* 2013) Serge takes to the flâneur life in London, which is like a 'nether world whose air is rich with covert signal' (p.201), which he devotes his time to decoding, from 'street signage, chalk-marks scrawled on walls, phrases on newspaper vendors stalls and sandwich boards, snatches of conversations heard in passing...' (p.211) Everything he comes across he treats as 'potentially encrypted.' Telecommunications emerge as an organizing principle of experience; a moment splintered on arrival, transmitted, and reassembled according to mechanical principles. When Tom has an accident on his bike, threatening his body once again, these forces knot together: '...a whole tumult of images came at me... the coloured patterns floating on the puddle's surface.' After his fall in a moment of stillness, the confusion reassembles his experience of tumbling into foreign characters: 'the patterns took the form of Greek or Russian letters.' (p.194)

It is also in this sense of decoding and unveiling, as well as the concept of the rerouted wound in the narrative that trauma occupies a central place in McCarthy's fiction. As it is an enterprise of disposing of conventional hallmarks of literary fiction, McCarthy strays away from the expected, as Vermeulen puts it by 'denaturalizing the connection between the novel and trauma': then questioning how this connection has 'unwittingly adopted elements of traditional psychological realism—to what extent, that is, are these accounts implicitly (or residually) novelistic.' (p.554) Vermeulen's explanation for trauma's role in fiction is that it expresses the 'grammar and not the psychology of post-trauma.'

(Vermeulen, 2012, p.551) The novels are resolutely anti-psychology, but use the cryptography of trauma to illuminate this nature in telecommunications. The

repetitiveness and circularity recalls Freud's work on trauma and the principles of repetition-compulsion, working through the death instinct: to "re-establish a state of things that was disturbed by the emergence of life". (Freud, 2006, p.709) Traumatized time relies on and builds on latency and delay.

What is central to McCarthy's use of trauma is the idea of the body as a broken machine. He is interested in what happens when coding goes wrong; when the mechanisms of the body cease to function as they should. The Great War is a brief backdrop to Serge's coming-of-age; another exceptional circumstance Serge finds himself in that has about as much effect on him as anything else; which is, not much. He is occupied with "Observing...Gaping from a place." (p.262), figuring himself as a voyeur apart from the action. Indeed, much of the reportage of his time on the Western Front treats the 'Great Event' of the Modernist era, the aftermath of which led to an abundance of psychoanalytic and rehabilitative developments to accommodate the sheer volume of trauma, in the same way as his experiments. David Jameson Chandler posits a theory of 'Glitching Modernism' that places the broken machine at the centre of the creative process of the era McCarthy harks back to. In Chandler's view, broken machines be the 'crisis in the mechanical processes of artistic creation.' He suggests that their omnipresence in the era connects with the creative disruptions occurring in the texts that draw attention to writing as the result of multiple mechanical processes: such as an 'intentional misprint in a novel.... (that) calls attention to its materiality and its dependence on the machines of the printing press for production.' To Chandler, the result of this is a culture that 'allow(s) the text to assert an alternate space in which multiple readings are possible, generating energy through unpredictability.' (Chandler, 2015, p.4) The broken machine for McCarthy too is an artistic and fictional novelty. Serge's panoramic vista of the battleground allows him space to reimagine the soldiers as vessels for signal. He isolates body parts to their potential usage, echoing his father's instrumentalisation of his pupils. 'Deformed' mouths become crude

radios: 'twisted surfaces and turned-out membranes forming receptacles in which its frequencies and timbres are unravelled, recombined, then sent back out into the air both transformed and augmented, relayed onwards.' Eyes that appear lifeless 'seem electrified, shot through with a current that, being too strong for them, has shattered them...' (p.177) Serge wills these broken, malfunctioning machine-bodies back into usefulness: stripped of their humanity, with 'empty' eyes and horrific injuries they are conduits for an overwhelming, destructive current.

The singular event that shakes Serge out of this listless affect is his furious reaction to a staging of Edwardian spiritualism. He punctuates stretches of hedonism with visits to a fraudulent American psychic, 'persecuted by malicious sceptics' who 'offer(s) her gift to the more open minded peoples of the Old World' (p.219) in Hoxton. Pam Thurschwell shows the popularity of the spiritualist movement during the transition from nineteenth to twentieth century perversely as a product of the technological advances of the era: '...the possibility of telepathy, legitimated by comparisons to the telegraph and telephone, focused erotic fantasies of minds and bodies merging, as well as utopian hopes for better communication.' (Thurschwell, 2005, p.8) In contrast, McCarthy has himself described these spiritualists as committed materialists (McCarthy and Kelly, 2010), incorporating in the passage rhetoric of 'vibrations', 'energy' and 'frequencies', the ringleader's tone becoming 'elevated, like so many atoms, gathering scientific gravitas.' (p.226) Serge's discovery that a remote device controls the company's Ouija board incites him unmask the sham with a counteractive device of his own design. The violence of his reaction is more than mere outrage at the sight of technology hijacked for fraudulent purposes. One explanation is that the psychic, pumping out disparate voices and jumbled meanings ripe for decoding, appealing to Serge's obsessions, is a mockery of the broken machines. He is furious when he sees the man controlling the board, showing the mannerisms of a broken machine: 'twitching elbows,' shoulders 'tensed' in a markedly different way to other audience members, but fully in control, and in command of the technology. The broken

machine being a mere distraction away from something at once fully operational, and cynically too out of reach to for decoding, is too much for Serge to bear.

### **Trauma and the Problem of Authenticity**

Another way of thinking about trauma in McCarthy's work is to make ties to the place of trauma in the twenty first century as a now constant state of experiential duration. The integration of recording technologies with portable and domestic devices, most particularly the smartphone, has advanced a way of thinking that everything must be recorded. For the twentieth century anthropologist Bronisław Malinowski, the imperative motion to capture experience is to 'write everything down.' (McCarthy, 2015a) McCarthy, voicing U in a BBC segment to publicize *Satin Island* speculates on the validity of this edict in a digital era. He responded by citing surveillance, GPS, web history tracking and the core of our 'kinship networks being mapped by software' as evidence that 'it is all written down already.' Furthermore, he contemplates the future of certain writing structures that are cannibalized in this: 'Where does this leave the anthropologist? The writer? The report? The tome? The book's already there, but who can read it?' (McCarthy, 2015a)

We could comfortably think about news as a technology subject to the same laws of obsolescence and progress told in Moore's Law; with time logged as an equal measure of growth as capacity. A report from UCI in 2014 compared stress levels surrounding the Boston Marathon bombings between those affected by 'direct exposure vs indirect media exposure'. (Holman *et al.* 2014) The conclusion was that the media (which considered both 'traditional and social media') caused higher stress levels than found in individuals who saw the attack in real time. The study pointed out that victims and onlookers in Boston had the support of the emergency services and aftercare teams able to process community PTSD; the possibility that trauma levels in social media onlookers could exceed that of victims of such events is chilling. The lack of regulation, and the lack of structured time in

reportage has the potential to create a public health crisis of trauma left undealt with. The excessive, unbearable weight of knowledge manifests as operatic, existential show-downs that conclude *Remainder* and *C*.

In *C*, both Serge's life and narrative end on a boat trip towards Cairo, where he isolates himself in his cabin: sweating and nauseous from the movement of the boat and an infected leg cyst, he drifts into a fatal breakdown. The obsessions and repetitions of his life take form in his own body; he becomes an insect, which touches feelers with a 'giant, tentacular wireless set' (p.301), which is also a part of his transforming body. He imagines the voices of the pupils of his father's school, the building itself, and 'the whirr and clack of film projectors or motorized curtains' 'welling upwards' from the depths of the river. The condensation of his fragile mind overflows into the workings of his 'transformed and transforming body' (p.306), described again in the language of a Freudian case study – image, trauma, seepage, embodiment, disembodiment. He loses all sense of time – he is completely out of time – and is 'bathed in noise and signal – not just the transmitted noise and signal, picked up at a distance, but the source noise, the source signal, at their very point of origin.' (p.304) He fantasizes that he has finally reached what he has worked towards – a moment of epiphany and total knowledge. He sees the world as:

...negative...in the strict photographic sense: a reversed template from which endless correct, right-way-round copies can be printed, but that itself is destined to be held back in abeyance, out of view, withdrawn – a fact that makes this one moment of revelation he's being granted even more exceptional, all the more sacred, as though he'd suddenly been given access to the darkroom of all history.  
(p.306)

The pursuit of unattainable knowledge has an equally fraught path for Tom; and it unspools in the interplay between Bergson's measureable and immeasurable duration. Jim Byatt compares McCarthy's novel with J. G. Ballard's *Crash*, (Ballard, 1973/1996) evaluating the novel as a narrative dealing with 'peritraumatic dissociation'. Byatt describes this as where 'subjectivity becomes substantially divorced from the objective



world in which the incident takes place.’ (p.246) Byatt points out Tom’s attraction to structures and systems ‘and above all with repetition and reproducibility serving as persistent reminders of the protagonist’s dependence upon the artificial’ (p.247) may suggest a severance from what he calls the ‘real, authentic’ world. (Byatt, 2012) However, Tom attempts to cling to the minor ‘objective’ details; a major part of his re-enactments is a forensic approach to ‘gathering data: sketching, measuring, transcribing.’ (p.149) He carefully describes small, throwaway experiments: ‘the amount of time it took the sunlight to first flood and then drain from each flow in the afternoon, or how long it would take for the swings, if pushed with such and such a strength, to come to a complete standstill.’ (p.150) Rather than a departure from the ‘real world’ this proves his severely impaired ability to ascribe value judgements on his experiences. His final thoughts settle on oblivion, and the cessation of the patterns that have obsessed him: ‘the universe would run down...no more music, no more loops,’ (p.284) and it concludes with ambiguity; the final question is whether his happiness derives from embracing the automation of repetition, or the prospect of release from it.

This chapter finds trauma and the inauthentic to be products of digital time; and the latter is particularly relevant in the politics of the post-Brexit and post-Trump era; populist movements on one hand enabled by the appearance of the ‘authentic’ and the straight-shooting, and on the other bolstered by voters targeted online by ‘fake news’ produced digitally. Jeanette Edwards, Angelique Haugerud and Shanti Parikh summarized how global narratives responded to the Election and referendum; a repellent ‘rupture’ in the world order presented by a ‘resurgent politics of intolerance’ or ‘business as usual...a display of institutionalized racial and economic injustices and inequalities that have long betrayed democratic ideals.’ (Edwards *et al.* 2017) The instantaneous spread of information can be vital for getting justice; alerting people to potential dangers, prompting standers-by to action and incentivising the public to respond to injustices. But it has also proven to give platforms to voices that thrive in a space that is unregulated, and unbound

by conventional journalistic or broadcasting ethics. The political agenda of 'authenticity' has a long history, expressed in greater depth in the chapter on 'Taste.' For McCarthy, 'inauthenticity' arises from the superfluous and all-encompassing production of the artificial; which comes to submerge the surfaces of the novels in a manner analogous to U's fantasy of crude oil vinyling the environment. Walter Benjamin notes the 'accelerated intensity' of the state of the replica over the span of the mechanical era, citing the turn of the twentieth century as bringing into focus the fact of the 'whole sphere of authenticity (being) outside technical - and, of course, not only technical - reproducibility.' (Benjamin, 1935/2008) Expanding on the influence of Benjamin, Bryony Roberts claims that the trajectory of culture's relationship with authenticity 'reveals a change from emphasis on original materials toward intangible, environmental qualities, and increasingly permissive attitudes toward copies and imitations.' (Roberts, 2015, p.2) McCarthy grapples with the wavering state of the authentic in the creation of characters for whom the pinnacle of experience is embodying the automaton – to approximate action and selfhood without the necessity of interiority or reflection, as Zadie Smith suggests in her reading.

*Remainder's* narrator notes early in the novel that he has 'always been inauthentic...Second-hand,' as opposed to those he believes are 'doing their own thing, real, not thinking anything.' (p.24) In his increasingly fractured process of measured distance, Tom sets himself apart from a 'natural order' that does not exist. Daniel Lea calls his process a 'fleeting apperception of a transcendent core not just to selfhood, but also to life itself.' (Lea, 2012, p.464) Tom shares this fraught relationship with his environment with Serge, whose awareness of the invisible forces of wireless entangles with his self-determination. The category of 'real' people proves doubly fallacious, in that the concept of authenticity is already on shaky ground. It is, nevertheless the desired states of being of Tom and Serge, creating a void in the centre of both texts that becomes their subject. Sydney Miller typifies *Remainder* as an 'obsessive quest to capture the elusive feeling of authenticity' (Miller, 2015, p.636), and this evasive quality permeates the discourse

around Tom's ability to distinguish between the authentic and the fraudulent. Tom's pre-accident state of mind is riddled with these same anxieties of authenticity. Of the scenarios, he pictures happening with Catherine, with whom he has had a years-long flirtation, he says '...something always came along and short-circuited these imaginary seductions, fucked them up. Even my fantasies were plastic, imperfect, unreal.' (p.26) Even his lucid mind cannot escape the steering power of this anxiety. Post-accident, his movements are expressive of his obsession with authenticity;

...I pretended to weigh up several options and then come to an informed decision. I even brought my finger into it, the index finger of my right hand. It was a performance for the two men watching me, to make my movements come across as more authentic. (p.15)

Tom considers his own actions as pretence and performance, and disregards the workings of the minds of others in their actions. His greatest ally, his facilitator Naz can keep up with his demands, because he appears to understand his single-mindedness. Tom describes Naz as a 'zealot' for his re-enactments; up until the point of Naz's realization of the horrible fate awaiting them, where he drops this and becomes as 'monotone' as the crowd assembled by Tom. On their first meeting, he groups those pulled into his plans: "Performers isn't the right word." I said, "Staff. Participants, Re-enactors." (p.85) Listing these roles underscores the importance that those on retainer are passive, interchangeable, and vacant.

The crowd is critical to Tom's vision of himself as the exceptional outsider. Watching a crowd of friends whom he imagines to all work in the media, he considers their collective self-image: '...they didn't have to sit in a cinema or living room in front of a TV and watch other beautiful young people laughing and hanging out: they could be the beautiful young people themselves. See? Just like me: completely second-hand.' (p.50) Tom has a sense of separatism from his environment and time that is at once callous and anxious. Similarly, Serge experiences a sense of separation, a fictional near-century apart in London. We get a sense of the isolation of his life through his self-conscious musings on his functions in crowds. He takes issue with the narrow routines: 'the movements and gestures these

involve, seems so limited, so mapped out in advance, as to be predetermined – as though they'd already happened and were simply being re-enacted,' and processes these encounters as the result of a tactic agreement to 'maintain the farcical pretence that this was something new and exciting.' (p.194)

These perspectives of isolationism, and the mentality of stripping the crowd of their humanity engage directly with the discourses of post-digital social behaviour. Sherry Turkle's position that technology's social prosthetic effect encourages us to 'take what we need' from others in 'bits and pieces; it is as though we use them as spare parts to support our fragile selves' (Turkle, 2015, p.47), and this is precisely what drives Serge and Tom. Whether it is the crowd or one subject, both are unable to imbue their gaze with any further power than identifying functionality. Both partake in rituals of self-exceptionalism, fetishizing those they consider 'authentic.' Serge has an affair with Tania, the woman charged with his care at the sanatorium. She is a satirical variation of a Romantic 'noble savage', described in the text as at once ignorant, but with an earthy wisdom and 'naturalness' that accentuates Serge's oddness. She is simultaneously inside and outside of time; at once an object of the moment and untimely. The rhetoric of this seduction passage follows this logic of paradox; using her body as a site to explore Serge's 'inauthenticity.' He describes her body as another re-routed device, something 'running through her as though she were a conduit, a set of pipes,' aligning her with the deaf children and soldiers; but beyond that, showing Serge's inability to figure out distances and degrees of intimacy. He watches her closely while they have sex, noting 'the way her eyes seem almost oblivious to what's in front of them, fixing instead on something other than the immediate field of vision, deeper and more perennial...' (p.104) Serge perceives her as a vessel of his mania, the power surge, but also imbues her with a capacity to be outside time that eludes him for much of the novel.

In *Remainder*, Tom similarly projects a fantasy figure of the untimely in the guise of the homeless man. He presents a version of events in which he takes the man to dinner, to gain

some sense of his 'reality.' Aware of his role as 'voyeur,' he muses on those sleeping rough: '...I started thinking that *these* people, finally were genuine. That they weren't interlopers. That they really did possess the street, themselves, the moment they were in. I watched them with amazement.' (p.52) He admits that it is false, he merely watched them, taking in their 'sense of purpose, their air of carrying important messages to one another.' (p.56) Serge and Tom's anxieties about the artificial categories of 'real' and 'inauthentic' furthermore tangle with anxieties over recording technologies, which depend on the splintering of experience and moment to give meaning to their form. I mentioned Tom's mantra, 'no recordings.' One reason for this may be the form's reliance on fragmentation, which as Leo Charney argues, is the distinguishing quality of recorded time. Film, for example, in Charney's view is a 're-presentation' which:

...play(s) into the evacuation of presence that characterized the modern. If there was no present, the re-presentation did not simply reiterate a previous presence. There was no present to re-present. Representation in this sense confirmed the artificiality and evacuation of presence in general. (Charney, 1995, p.292)

This 'evacuation' of the present ties in well to the self-obliterating McCarthy narratives. *Remainder* opens with a troubling non-event; 'a blank: a white slate, a black hole... vague images, half-impressions' (p.5) that wipes out the organically recorded time of Tom's memory. He is doubly bound by his inability to remember the cause of his amnesia, and his legally imposed silence: '...you can't discuss the accident in any public arena or in any recordable format.' (p.8) The insistence on this 'recordable' aspect sets in motion a fascinating attraction and repulsion complex to the possibilities of recording. Filmic time takes the images and reverberations of past time, and loops them rupturously into the present. It is both a manipulation and liberation of temporality; which to Tom, makes it intolerable yet alluring, as the narrative attempts to drag organic moments into the orbit of his ultimate control.

Lea's reading of *Remainder* is that Tom's conception of the authentic lies in a 'concomitance of materiality and experience of self' in which 'external naturalness' is one with 'a form of internal perceptive flow that transcends the need for contemplation.' (Lea, 2012, p.465) His experience of watching *Mean Streets* is a catalysing moment for his re-enactments; it falls quickly on from his release from hospital. He describes the jarring sensation of watching the film, as it is so close to the passive reassembling of memories in his head: '...my memory had come back to me in moving images... like a film run in instalments, a soap opera, one five-year episode each week or so...I'd lain in bed and watched the episodes as they arrived.' (p.22) The film gives him 'no lesser a degree of detachment and indifference, but no greater one either, even though the actions and events had nothing to do with me.' (p.23). Airing his feelings of inauthenticity to his friend Greg, who tries to ground him: reminding Tom that '(De Niro is) the plastic one...being stamped onto a piece of film and that.' Robert De Niro's actions strike him as the perfect model of being: performing each action 'perfectly, to live it, to merge with it until he was it and it was him and there was nothing in between.' (p.23) This nothing is both thought and time.

I would like to draw this chapter to a close by positing that McCarthy's novels postulate a broken model of experience. In his work, there is a necessary irresolution between raw experience and its products. The digital subject lives in an age of constant deferral. The communications they receive are the summation of fragmented and occulted parts; and they live with the enormity of contemporary experience, contrasted with its granular nature. There is a strange repulsion and attraction dynamic to material in the novels that puts up some resistance to virtuality. It is no coincidence that U's fantasies revolve around waste products. The 'trash-mountain' he dreams up is 'in its very degradation, more weirdly opulent than the capital it served.' (p.131) U's greatest fear, in response to Malinowski's decree, is not that 'The Great Report might be unwritable, but – quite the opposite – that it had already been written' (p.117), which finds the biggest threat to

duration posed by digitality; that when something ceases to work as it has before, technology will find a way to approximate and draw back into circulation these broken parts, as Lanier hypothesizes. Thus, McCarthy is putting digitality to use in a deceptively generative way. These novels posit a central absence or subtraction of novelistic parts, of subjectivity, of cohesiveness and easy resolution. McCarthy shows what a re-circuiting and recalibrating digital era novel could look like. McCarthy may question the future of anthropology and of documentation, but in this approach, foregrounding plasticity, and adaptability in the model of their greatest threats, he may, among others, have found a solution to the problem of fiction's place in an auto-archiving world.

### **Empathy: J. M. Coetzee**

May God us keep/From single vision and Newton's sleep,' wrote William Blake. I am not sure that Blake is being fair to Newton here, but if God will not keep our children from the single vision of YES or NO then it is up to the poets to do so. (Coetzee, 2016)

J. M. Coetzee is a distinctive figure in this thesis among the writers under consideration, as his works have more span in the twentieth century than the twenty first (at the time of writing). The novels under discussion are an example of Edward Said's late style, (Said, 2006) and see the Nobel laureate grappling with the new state of the digital. I explain the relevance of 'newness' in the twenty first century in greater depth as it appears in Ali Smith's *The Accidental*, due to an explicit reference to how periods are created, but it is of importance to Coetzee's more recent novels. The recurring concerns of his oeuvre accommodate the evolution of digitality's apparatus: the recurring preoccupation with legacy and testament, of confession and of the injustice of 'othering' find expression in the possibilities and limitations of the virtual world. A commonality in Coetzee's work is studying characters in moments of extreme crisis to explore the ability of the individual to find a way back into grace: pitting the individual against the repercussions of sexual violence (du Toit, 2017) or dealing with the scars of colonialism and apartheid. (Parry, 2011) Coetzee unpacks contemporary anxieties about personal narrative and obsolescence in the face of a new order in recent novels, *Elizabeth Costello* (Coetzee, 2004), *Diary of a Bad Year* (Coetzee, 2008) and *Summertime* (Coetzee, 2009). Said perceives 'lateness' as the artist at the peak of power and experience deserting 'communication with the established social order of which he is a part and achieves a contradictory, alienated relationship with it.' (Said, 2007, p.8): which conjures some of Coetzee's power to illuminate his present, but more reflects the relationships these protagonists have with their own environments. Coetzee's fictional landscape is one in which the characters flay



themselves open until their most fevered private hells and ecstasies are exposed, which makes him a superlative novelist, like Smith, of the age of enforced transparency.

Notably reluctant to court the public through appearances, it is hard to imagine Coetzee being interested in social media, and the last writer imaginable to set up a Twitter account and exchange succinct pleasantries with admirers. However, Coetzee's fixations on understanding and being understood, and personal transparency speak to concerns about the role of empathy in the digital world. In moral philosophy, empathy is an ontologically delicate concept. (Coplan, 2011) Neuroscientists, psychologists and sociologists grapple with what empathy is, and even how useful it is to social behaviour. (Bloom, 2016) A cognitive neuroscientist's approach agrees that despite differing opinions on its definition, one can find three commonalities in understanding empathy: '... an affective response to another person, which often, but not always, entails sharing that person's emotional state... a cognitive capacity to take the perspective of the other person; and ... emotion regulation.' (Decety and Jackson, 2006, p.54)

The global community is encouraged to visualize themselves in the place of others to stimulate and strengthen our compassion. (Calloway-Thomas, 2010) The promotion of empathy is omnipresent in news reportage and advertising, and even used to rehabilitate the image of rogue corporations, as seen in Facebook's investment in VR 'empathy machines' (Neubauer et al, 2017) following a string of public scandals. Coetzee himself put forward three propositions on empathy:

There are people who have the capacity to imagine themselves as someone else, there are people who have no such capacity (when the lack is extreme, we call them psychopaths), and there are people who have the capacity but choose not to exercise it. (Coetzee, 1999, p.34-35)

Empathy is central to personal relationships and the broadest political strokes alike, as it depends on accepting that an individual is either capable of insight into the emotions and motives of another, or of performing complex cognitive simulation processes that narrows the gap between one individual's mentality and another's. Debates about empathy must

now consider the impact of screen technologies on empathetic communication. Greenfield and Turkle are among many who have concerns about how virtuality disrupts empathy. Josh Cohen condenses the 'basic predicament of human relations in the online world' into a simple suggestion:

In providing the means for limitless self-revelation, the Internet has become a fecund breeding ground for deception. . . The confessional impulse is directed in one and the same movement to hearing and telling the truth about ourselves, and to corroding it. (Cohen, 2013, p.141)

Digitality has therefore provided individuals with an opportunity to steer their personal narratives in any direction they wish, creating a culture in which individuals will auteur and manipulate aspects of their lives, and that we are all complicit. Running in parallel with digital *auteurship* is the notion of digital transparency. The idea of total transparency is taken to its ad absurdum conclusion in Dave Eggers' *The Circle*, with the recurring mantra of the company at the novel's centre being: 'Secrets are lies. Sharing is Caring. Privacy is theft.' (Eggers, 2014, p.305) Creating and recreating yourself online has a natural knock-on effect to empathy, as Coetzee explores. His characters see the new virtual encroachment as a transition into the unknown. The novels all feature writer protagonists, respectively Elizabeth, Señor C, and John. In the case of *Costello* and *Diary*, these are professionals past the prime of their careers who record the disintegration of their critical reputations. The narratives of both circle in on the sharpest moments, most revealing of their failings both publically and in private, which bleed into each other, in keeping with the digital now. The 'contemporary' settings of these novels are conducive to these concerns. Señor C is commissioned by his publisher to produce a set of 'Strong Opinions' on hard-nosed topics such as 'Terrorism,' 'Origins of the State' and 'Guantanamo.' While writing, he develops an infatuation with his neighbour, and finds his own narrative taken up by her. Meanwhile, the insidious side of digitality is ever present in the form of Anya's partner Alan, who hacks into C's hard drive and plans to extort money from the writer,

taking advantage of the older man's attraction to his partner. *Summertime* dips into the memories of those 'chosen' by the deceased John to appear in a forthcoming biography of the writer, ambivalently dredging his personal life in the name of scholarship. The stakes shift from the deceased's reputation to more existential tensions. The main narrative body of *Costello* follows the writer in her travels to public speaking appointments (of her own and of others) and details her blunders and icy receptions. Coetzee explores empathy in its various forms, and in doing so presents a formal accusation of the contemporary obsession with transparency.

These novels figure the problem of digital empathy as an anxiety that is literary at its heart. In both cases, we empathize at a remove. On a screen, as in a novel, we perceive something recognisably human or humane beyond the construction; and yet have a reservation and intuitive suspicion of what is before us. As David Scott Kastan put it: 'text displayed on a computer screen is no more or no less real than the text printed on paper.' (Scott Kastan, 2008, p.732) Reading either screen or page depends on a complex internal sounding out of varying factors; like an ethical echo chamber, but with more equivocal variables. There is an added anxiety that the rise of the digital comes at the expense of the written word; as we have seen, particularly for the novel, which is constantly 'dying' in cycles of critical approach. Suzanne Keen speculates that 'the evaporation of a reading public leaves behind a population incapable of feeling with others,' but recognises the possibility of a counter argument that '...(y)et the apparently threatened set of links among novel reading, experiences of narrative empathy, and altruism has not yet been proven to exist.' (Keen, 2006, p.208) The presence of such interest in the benefits of reading to the empathetic faculty reflect its cultural instability. At a crisis point for the company in the court of public opinion following scandals on the extent of its political influence, Facebook's Mark Zuckerberg unveiled plans to fund the development of Virtual Reality 'Empathy Machines;' (Jones, 2017) which cynics could point out as an attempt to again win over the public. Empathy becomes a vulnerable but valuable resource, and a cognitive or

behavioural convention needing more self-regulation than the 'real.' There are many reasons for this, but I will explore the chief obstacles to contemporary empathy at the forefront of Coetzee's recent fiction. Digital usage that urges the development of the individual as a 'brand' or a 'presence' sustains and nourishes narcissism. Coetzee's take on contemporary narcissism examines this with the considerations of reputation and legacy. The Janus-like duality of the public and the private life enhanced by a secretive and easily manipulated way of living takes on further dimension in Coetzee's digitized mind-set. Another recurrent Coetzee theme, shame, is recalibrated culturally. The extraction of hidden behaviours through digital means has radicalized legacy. It has never been easier to externalize humiliation.

### **Networking and Narcissism**

The mediatory nature of communicative technology, and this increasing propensity to equate our 'selves' with a carefully cultivated, digitally enhanced image places extra pressure on our cognitive and affective abilities. The symbolic feast of a conversation between two people with visual cues, gestures, intonations of voice and physical contact is an altogether different experience to a conversation had via the keyboard, or in Kittler's figuration, the less sensuous impressions of conversation or speech contained by hardware. (Kittler, 1999) Of course, participants in a digital conversation can still infer the feelings and intentions of the other, but both are severely impaired and constrained by the technology meant to connect them. Even with software such as Skype, the image of another person always keeps the cognitive dissonance, as it never escapes its frame. Therefore, there is worry about the effects of this culture on the social development of a person, and the potential for pathological behaviour. Turkle believes that networking online enables an individual to learn 'a way of feeling connected in which they have permission to think only of themselves.' (Turkle, 2011, p.60) This certainly resonates with

how psychologists understand what drives narcissism. A narcissist ‘possesses an ‘impaired ability to recognize or identify with the feelings and needs of others’ and is also ‘excessively attuned to reactions of others, but only if perceived as relevant to self’. (APA, 2012) This definition of distorted receptions in communication is a helpful one in assessing Coetzee’s dynamics of contemporary narcissism. Coetzee could be accused at worst of proving in his writing a wilful refusal to confirm certainties within the text. T. Kai Norris Easton notes that Coetzee’s characteristic ‘aesthetics of ambiguity’ has disgruntled some detractors, who see his works as overrun with ‘strategies’ and ‘gaming.’” (Easton, 1995, p.587) *Elizabeth Costello* and *Summertime* foreground the struggles with the line between narcissism by employing a reflexive ethic of self-examination. Both novels are a fierce rejection of narcissism and a promotion of empathy in its conventional sense.

Greenfield’s research into neuroplasticity in response to screen stimuli leads her to a conclusion that is becoming more widely embraced, even amongst those rejecting her method and some of her more controversial claims, such as links to autism. She argues that digitalized narcissism results in low self-esteem and loneliness. As she puts it, ‘constant narcissistic obsession with the self and its inadequacies will dominate... the more inadequate you feel, the greater the appeal of a medium where you don’t need to communicate with people face-to-face.’ (Greenfield, 2014, p.124) *Summertime* dwells often on loneliness; and its impact lies in the fact that the blows never quite land. There is a clear disconnect between private and projected self in his demeanour. John’s biographer wonders if he has ‘not (committed) himself emotionally’ (p.211) in his life, which has led to an overriding impression he has given of weakness and apathy, particularly in the eyes of women he has known. One interviewee, a contemptuous former dancer describes him as a ‘wooden puppet’ with ‘no soul,’ and as ‘not human’ (p.199): a figure of pure unfeeling technology. His greatest crime seems to be a lack of self-assertion during his life, a failure to leave a stronger trace than a scratched vinyl. In McCarthy’s *C*, the wax record creates opportunities for posterity for the deaf children; their collective endeavour to find voice is

materialised yet distorted by the technology. In *Summertime*, the record has a similar effect: it is a material trace of John's frustration, a rare moment of action that in the scope of the novel's series of resurrections and inscriptions of memory is trivial, yet is structurally and symbolically in a powerful position; it is one of the last and most lingering impressions of the narrative.

His ex-lover Sophie recounts when a French journalist dismisses Afrikaans as a 'dialect', presenting John with an opportunity to defend his language and assert his identity that he does not take. His anger is fruitless: 'since his way of being angry was, rather than raising his voice, to turn cold as withdraw into silence, the man from *Libération* was simply confused.' (p.237) Similarly, he quarrels with his favourite cousin Margot, whose persistence about plans for John's seriously ill father's future care leads to a similar reaction; unresponsive and 'petulant' (p.237), despite her striking a raw nerve. Yet as a narrative device he has the power to generate a diasporic narrative by subsuming his own, to give opportunity for the reminiscences of others in an almost utopian ideal. The novel falls silent on the scene of his ailing father, significantly returned home after a laryngectomy. Without the presence of a stronger voice, a literal silencing, to preoccupy the text, John lets his narrative go.

*Costello's* eponymous protagonist is an 'acidulous,' aging novelist, removing herself from literary practice in favour of a life as a public intellectual, sharing her 'strong opinions'; on what she sees as a destructive branch of androcentricism being embraced by her generation and the next at the expense of animals. Elizabeth fills her time with appointments made capitalising on her most successful work, a gynocentric rewrite of Joyce's *Ulysses* from Molly Bloom's perspective. Her son John offers that it is 'a great novel; it will live, perhaps, as long as *Ulysses*; it will certainly be around long after its maker is in the grave.' However, she spends less time speaking on what her son sees as her great opportunity for posterity, and more on an indulgent cause célèbre that further isolates her as a topic less-than genially received by her audience, and a source of embarrassment to

her family. Those around her she describes as 'goldfish': 'Flecks of gold circling the dying whale, waiting their chance to dart in and take a quick mouthful.' (p.36) There is a striking trail of decay and stultification surrounding the writer, to highlight an increasing alienation and self-imposed exile from social interactions, and a confrontational attitude to those around her. The motif of animal rights throughout the novel serves multiple purposes. The novel began life as a treatise on the topic in Coetzee's 2003 work *The Lives of Animals*; and is therefore a vehicle for Coetzee's personal interest in the subject, if not directly voicing his exact thoughts on the subject (as he warns in *Diary*, we must 'tread carefully' in the case of ascribing opinion to the author.)

Her determination to speak on the subject even where its propriety is questionable starts a specific debate about personal narcissism. Through her orations on animal rights, Elizabeth creates a distinctive version of herself in the present day. By pursuing the theme of animal rights, she at once distances herself from a writing career she has relegated to the background due to a crisis of confidence, and distinguishes herself as a persona with a singular and individuated cause. Elizabeth's reinvention of herself has the tone of marketability and cultivation that challenges the assumptions of her critics that she is a relic. In fact, it shows her engagement with the changing times. A 2014 study courtesy of the University of North Florida explored potential links between social media usage (specifically Facebook) and narcissism, and unsurprisingly users who notably took part in self-reflexive and regulatory actions such as changing a profile picture, and updating a status scored higher on narcissism. A link was unveiled also between narcissism and 'personal distress,' a 'self-oriented reaction.' (Alloway *et al.* 2014, p.154) The way that Elizabeth approaches moments of distress shows this complexity. Tearfully she recounts to her son: 'Is it possible, I ask myself, that all (people) are participants in a crime of stupefying proportions? Am I fantasizing it all?' (p.69) Her insistence in her own singularity makes her even more unrelatable to others. Norman Phelps similarly

speculates that Elizabeth's way of involving herself in animal rights without any discernible outcome is pure narcissism. He claims:

... A woundedness caused by the wounds of others that does not motivate us to go out into the world and heal those wounds is self-indulgent (and) ...narcissistic... animals are no better off for Costello being wounded. Woundedness is only the first step. When it is mistaken for the entire journey, aesthetics and narcissism triumph over ethics and altruism. (Phelps, 2008, p.13)

This is echoed in Derek Attridge's reflections on critical responses to *Costello*; that some 'complain that Coetzee uses his fictional creations to advance arguments – about the human relation to animals, about the value of the humanist tradition, about the morality of representing evil in fiction – without assuming responsibility for them, and is thus ethically at fault.' (Attridge, 2004, p.197) Although this severance of ethic and responsibility is a reprehensible fault of Elizabeth's, it is tempered by her neutered self-awareness in the quieter moments of the novel. Norma's 'close to the bone' dissection of Elizabeth's vegetarianism early in the novel is an uncomfortable passage because of the writer's refusal to engage with her daughter-in-law's sparring, and reluctance to give her cause for further irritation. Her son wonders if there is a 'trap (Norma) is leading his mother into' (p.87) right before she asks starkly, in full view of a listening audience: 'What is the point, Elizabeth?' (p.88) Norma appears to wilfully misunderstand Elizabeth out of sheer malice, claiming that her way of being 'has nothing to do with sincerity. She has no self-insight at all. It is because she has so little insight into her motives that she seems sincere.' (p.113) When asked if the vegetarianism in question comes from 'moral conviction,' Elizabeth answers that it comes from an attempt to 'save my soul.' (p.89) The weakness of her position becomes obvious on the arrival of a letter from a poet, who after seeing her 'Lives of Animals' talk, draws attention to her comparison of the treatment of animals to the Holocaust, dismissing the example as 'cheap.' What the reader realizes is that the 'cheapness' comes from not the shock value of the presentation, but the non-committal and dissociative half-reasoning behind it. *Elizabeth Costello* above all shows the



dangers of appearing to promote hypomnesic values without a structured and firmly held system of rationalization to uphold them.

Similarly, in *Summertime*, Coetzee contrasts the appearance of a central character with an interiority that rebels against it. John's private notebooks show a man recognisable as his persona, but the notebooks anchor the novel as both introduction and conclusion as an exploration of the difficulty of relationships. When watching news coverage of a massacre in a neighbouring town, John notes: 'His father shrugs. His father can find no form of words spacious enough to cover his distaste (for the killers) ... As a response to a moral dilemma it is feeble; yet is his own response – fits of rage and despair – any better?' (p.4) The first repetition, 'His father' shows a preoccupation with setting apart an 'other,' and highlighting the void between them. The father struggles to find the concise turn of phrase to condemn the 'petty tyrants' to give his revulsion weight, therefore forgoing the attempt; but in pursuing the mechanics behind the ineffectual reaction, Coetzee places more significance on this internal rationalization and endeavour than on the excesses of violent feeling from the son, which result in the fruitless states of 'rage and despair.' However, in his former colleague and ex-lover Sophie's later estimation of his work and character, she claims John is 'Too cool, too neat...Too lacking in passion.' (p.242) This empathetic problem is echoed by Suzanne Keen, whose claim is '(empathy) that leads to sympathy is by definition other-directed, whereas an over-aroused empathetic response that creates personal distress (self-oriented and aversive) causes a turning-away from the provocative condition of the other.' (Keen, 2006, p.208) Though the narrative features an absent subject that constantly turns away from provocation and engagement in favour of private pursuits and neurosis, *Summertime* is a novel that promotes an attempt at reaching out to others; skirting around any potentially narcissistic readings of the narrative. Once the interwoven and clashing voices of revelation and mistrust settle, an ethic of narrative generosity arises. The novel's cohesive force is the shadowy, anonymous biographer. The overriding sense we gain from him is of his floundering uncertainty in the direction of his

writing. His writing consists of hesitant margin notes over John's notebooks and partially transcribed interviews. We also see a willingness to let others take the reins not only over their own narrative, but his own editing and compilation.

Conversely, the hovering spectre of a narrator, as a review by John Rees Moore notes; 'more interested in his lessons than in his protagonist' controls *Elizabeth Costello*. (Rees Moore, 2004, p.xlviii) The overriding narrator has dominion over the pace of events in the novel – appearing at times to steer and censor parts of the text: "We skip ahead...a skip this time in the text rather than the performance.' This creates a rich texture to the narrative – on one hand, it is a howl of rage from a character whose wavering public voice does not convince either herself and an increasingly hostile audience; on the other, a subsuming narrator creating a Platonic dialogic text out of events. These Classical allusions are underscored by John's appraisal of his mother's place in the canon or contemporary scholarship: 'A mouthpiece for the divine. But *sibyl* is not the right word for her. Nor is *oracle*...(maybe) a god incarnated in a child, wheeled from village to village to be applauded, venerated.' (p.31) This is in keeping with the critical treatment of her work, but entirely at odds with the cold reception she gets throughout the novel. John wonders at her feeling for those 'admirers, adherents, disciples. Would it please his mother to be told she has American disciples?' (p.16) The novel is at pains to humanize the chilly and self-centred novelist, as she is simultaneously a waning cultural figure aware of her own decline, and unjustly maligned as such.

The 'narcissism – empathy' problem preoccupies Coetzee; in short, narcissism is a threat to empathy, but any shrewd 'fictioneer' can confuse others by presenting one as the other. In *Diary*, Alan attacks Señor C for precisely this: 'You put yourself as a lone voice of conscience speaking up for human rights and so forth, but I ask myself, if he believes in these human rights, why isn't he out in the real world fighting for them?' (p.197) 'Hashtag activism,' or 'slacktivism,' which is the digital sharing of information of social or political issues, drawing visibility and awareness to causes with minimal effort, worsens this

problem. Famous critics of the concept include Morozov and Malcolm Gladwell, who wrote in *The New Yorker* about 'low-risk' activism, pointing out that sharing an email or link 'doesn't require that you confront socially entrenched norms and practices. In fact, it's the kind of commitment that will bring only social acknowledgment and praise': and following that this way of thinking, of pursuing social reward and recognition with the appearance of 'doing good' is perilous. (Gladwell, 2010)

### **The Private and Public Self, and the figure of the 'Public Intellectual'**

The three novels pessimistically ruminate on the role of the writer as an impotent and socially futile force in the wider order, which capitalizes on the wider precarity of the place of the 'expert' in digitality. In *Summertime*, the biographer claims in interview with Sophie that the 'public never took (Coetzee) into their collective heart. There was an image of him in the public realm as a cold and supercilious intellectual, an image he did nothing to dispel.' (p.235) *Diary's* three-tiered structure alludes to this debate on the power of visibility and opinion. The highly stylized and intellectually rigorous *Feste Ansichten* are written for a niche audience and will be translated into a language he lacks fluency in, and therefore the resulting articles are removed from their source in every respect. Like Elizabeth, Señor C does not deceive those close to him. Anya's focus in the novel is to draw out the sympathetic, 'softer' side of the writer; to write a 'story with human interest' (p.77), which she succeeds in doing: '...you once told me you would not put your dreams in the book because dreams do not count as opinions, so it is good to see one of your soft opinions is a dream...Naturally I wonder if it doesn't contain a secret message about needing help.' (p.197) H. Porter Abbott has argued that *Diary* is an experiment in the 'potential for narrativity' in creating meaningful discourse; questioning: 'How are abstract themes best communicated in the temporal world of the living? In a sly ironic turn, the direction in with Anya leads this crumpled former master of the novel is...back to the

novel.' (Abbott, 2011, p.193) *Diary* is sceptical about authority claims, and prizes the creative project of a narrative of the self - and this is reflective of private digital usage. Digital culture encourages the individual to share aspects of their lives shared with a more intimate sphere in analogue times, creating a shift in a perception of the self; and that this creates in the individual a tendency towards a self-examining narcissism that exemplifies the on-going project of Coetzee's fiction. The necessary repercussion of this is a breaking down of our command of privacy; what is acceptable to know about another person, and what should be left alone. The design of smart technology encourages the sharing of intimate information, enabling a radical change in attitude to the distinctions between public and private life. The interplay between the private and the personal is a pressing strand in empathy's impact on contemporary culture, or vice versa. As much as empathy depends on the attempt to 'know' the interiority of the other, empathetic behaviour is about understanding the motives and thoughts of the individual and respecting them precisely as 'other.' Emotional intelligence entails an ability to draw a veil over the 'other's' most private self. The structure of *Diary*, with its multiple narratives battling for conceptual dominance and physical space on the page shows this well. As J. C. 's 'Hard Opinions' gradually lose ground as he gives in to the 'orbit of Anya,' the novel shows ultimately the surrender of the objective to the personal.

Zygmunt Bauman and Leonidas Donkskis's have explored the 'new evil' enabled by technology. It is particularly scathing about this newly reinforced tendency towards:

...the desire to colonise privacy by taking away a person's secret, the something that should never be talked about and made public...the global use of others' biographies, intimacies, lives and experiences is a symptom of insensitivity and meaninglessness.  
(Bauman and Donkski, 2013, p.7)

This insensitivity to the narrative of the private self is at the heart of Summertime's excavation project. 'Mr Vincent' chips away at the intimate experiences of his deceased subject, John Coetzee. Justin Neuman is especially critical of the biographer, an

'untrustworthy custodian' of 'mediocre creativity,' who, sin of all sins, 'ignores repeated rejections of his methodology' (Neuman, 2011, p.131) and yet, as pointed out, allows his sources to override his vision. It is hard to disagree when considering the patchy composition; the novel is presented as a work in progress: two 'fragments' of Coetzee's own journals bracket interviews with five sources at varying degrees of coherence. Among these respondents, two are former colleagues (Sophie and Martin), two former lovers (Sophie again, and Julia), his cousin (Margot), and one the subject of an unrequited infatuation (Adriana): a cross section of informants with ulterior motives. A central pattern of the novel is coming back to the impossible task of true self-awareness. The stilted nature of John's relationships reveal a failure of ideals and expectations in the face of the real. One torturous passage reveals John's frustrations in this; a futile attempt to conduct his affair with Julia in the manner of 'post-Bonaparte Austria,' and Julia's dismissal of him as 'forced, ridiculous.' (p.69) Those interviewed who are held at more of a distance from the writer in contrast are more scrupulous in respecting his privacy. Martin, whom John met just the once is most successful in reining in the excitable biographer. Anthony Uhlmann furthers the points raised by the academic:

He voices the concern, which is no doubt meant to echo in the minds of readers: how sound is the method the English biographer is pursuing? Is it not likely that, rather than offering a glimpse of a true portrait, the subjects the biographer has chosen to interview will have highly distorted, erroneous, ideas of Coetzee? Will not the whole project then, just provide us with a portrait in error? (Uhlmann, 2012, p.752)

It is likely that this error is deliberate, as a constant reminder to be wary of what a person chooses to 'reveal' about themselves, following Sidonie Smith and Julia Watson's observation that *Summertime* as a narrative form 'blurs any easy distinction between the fictional and the autobiographical.' (Smith and Watson, 2010, p.14) The rift between the public and private persona is made more complex by the fact that many of Coetzee's protagonists are presented as surrogates of his own public image, to make a point of the

vagaries of declaring the 'public intellectual'. (Lowry, 2008) The figure is key in this stage of Coetzee's oeuvre, less as a reflection of his place in the public domain, but engaging with the trajectory of history requisitioning the value of the expert, facing gradual erasure, (MacDonald, 2007) and as Elizabeth Lowry has it, looking to the writer's reflexive hermeneutics. (Lowry, 2008) This project of 'remaking' the author began with his earlier *autobiographical* fictions, *Boyhood*, and *Youth*, and is more directly continued in *Summertime*. Forrest G. Robinson calls this endeavour a 'formal audacity': diverting from the novel's:

...peculiar narcissism, the way in which its solitary, reticent, self-effacing central figure—a more emphatic version of similar figures in Coetzee's recent fiction, all of them (and progressively more) reminiscent of the artist himself. (Robinson, 2012, p.47)

In *Costello* and *Diary*, similarly fragmentary elements of Coetzee's own biography appear. There are references to his adopted home country Australia as a migratory destination, and intertextual nods to works in his critical canon. But rather than another instance of narcissism, this formal experimentation is a forceful reminder of John Zuern's insistence that 'the 'I' of autobiography and memoir, and even the 'third person' subject of biography, has never been anything but virtual.' (McNeill and Zuern, 2015, p.xi) This concept of the virtuality is key to understanding the 'surrogate' novelist trope, and its preoccupation with empathy: especially if one considers the enterprise of empathy as a simulation rather than as a resonance phenomenon. Having been accused of anti-Semitism by a reader of *Slow Man*, Coetzee considers this 'blurring,' and the problem of wielding freedom of the pen in a personal letter:

...An accusation (such as this), like an accusation of racism, throws one onto the defensive, "But I'm not one of them!" one wants to exclaim, displaying one's hands, showing that one's hands are clean.

To which his recipient, colleague Paul Auster, responds:

One can write back explaining that characters in novels have a degree of independence from their authors, and – particularly in the case of secondary characters – do not unfailingly speak for them. (Auster and Coetzee, 2013, p.96)

*Elizabeth Costello* is another self-consciously failed novel, deliberately so to underpin the sense of the novelist struggling with being subject to her readers' scrutiny and censure as a public persona. The reader takes cues from her son's prismatic observations of her, wavering between seeing her as a literary celebrity, as a self-consciously aging woman, and as his own mother. Seeing her after a two-year separation, he is 'shocked at how she has aged.' He notes her 'entirely white hair,' 'stooped' gait and that her 'flesh has grown flabby.' This unfamiliarity shows that John has succumbed to the 'estranged eye' after Shklovsky referenced by Señor C. (p.62) Elizabeth is resistant to 'playing up' a certain public image to hijack her own narrative and exercise some degree of control in thwarting and subverting her 'oracle' status: 'Because of the flatness of her delivery, because she does not look up from the page, (John) feels that what she is saying lacks impact.' (p.63) In some ways, Elizabeth represents a wholly unsuccessful attempt at 'simulating' a persona; she rejects performance, she appears flustered, she blames her shortcomings on anything that she can: 'The devil is leading me on.' (p.178)

### **Digital Shaming and Ignoble Posterity**

Shame is a powerful motivator of Coetzee's fiction, and the migration of public shaming to digital platforms offers the novelist another way of thinking about its narrative possibilities. The fear of being publically humiliated has now intensified by the prospect of an individual's shaming being not only projected to a wider 'audience' than would not have been possible a century ago, but being captured without a foreseeable ending in video, photograph or article form: which becomes an issue of human rights, in instances such as the right to be forgotten. (Ghezzi, 2014) Digitality has prompted new considerations for the courts to deal with: revenge porn, online dating fraud, data leaking and cloud hacking

are just a few of cybercrimes that have escalated in prominence over recent years, and have contributed to the redefinition of criminality and victimhood in the virtual world.

(Gangloff, 2017) In an essay discussing censorship in South Africa, Coetzee says:

...certain obscene acts can be construed as invasions of privacy; certain invasions of privacy may be obscene; but obscenity in general is not an invasion of privacy, and it is not possible to argue... that the general ground for acting against obscenity is to protect the *privacy* of the citizen (or the reader.) (Coetzee, 1992, p.321)

For Elizabeth Costello, the capacity for shame ‘makes human beings of us, shame of uncleanliness’ (p.85), and the claim of salaciousness remains one of the worst accusations to levy at an individual; enough to bring down a reputation or career. Jon Ronson’s work on public shaming takes stock of global examples of online humiliation. As he puts it, the digital spectators are like ‘soldiers in a war on other people’s flaws, and there had suddenly been an escalation in hostilities.’ (p.85) His findings make for harrowing reading by revealing the living nightmares disproportionality thrust on people following moments of stupidity or thoughtlessness. Ronson’s examples are of behaviours that, if seen away from the digital glare, would have earned frowns and admonishments that would soon have been forgotten by acquaintances, family, or friends. Instead, an insensitive comment, an anomaly in a thought process, or taken out of context can unleash the faceless digital furies. An anonymous journalist acquaintance of Ronson’s put it this way: ‘I suddenly feel with social media like I’m tiptoeing around an unpredictable, angry, unbalanced parent who might strike out at any moment.’ (Ronson, 2015, p.268)

Coetzee capitalizes on this contemporary fear of ignoble posterity: the narrative of the momentary indiscretion resulting in a purgatorial existence questions the ethics of unending shame and humiliation in an age of digital memory. Julian Barnes’ 2011 novel *A Sense of an Ending*, shows a narrator perhaps undeservedly racked with ‘complicated, curdled, and primeval’ (p.99) remorse after becoming aware of the consequences of a cruel but flippant letter he wrote as a younger man. (Barnes, 2011) This letter is a tangible



missive from the past which records shameful thoughts and feelings long evaporated: and yet their words endure with a curse-like power. The novel drifts between the protagonist's more localized, epistolary youth in the sixties, and his hyper-connected present, where the keyboard has the power to unknot in an instance decades of distance and ignorance.

Without the aid of these technologies to find the people involved, the narrator could have been spared this terrible knowledge. Barnes appears to interrogate the relationship between artefact and repository in a similar manner to Coetzee.

Coetzee's oeuvre alludes to the corrosive effect of ceaseless and unforgotten shame, whether contained by these repositories or inscribed in the body as living memory. In *Diary of a Bad Year*, a conversation between Anya and Señor C on 'dishonour' marks a sea change in the direction of the novel (sparked by an entry 'On national shame.' (p.39)) Anya describes a trip to Cancun she took with a friend, during which they were sexually assaulted by wealthy American men on a yacht. She concludes that at that point in the present, 'when a man rapes a woman it is the man's dishonour' (p.101), to which C replies 'Your three American boys – I have never laid eyes on them, but they dishonour me nevertheless...And I would be very surprised if in your inmost depths they did not continue to dishonour you.' (p.109-11) The passage is powerful in its meditations on trauma and affect, with an unspoken acknowledgement of the power structure at work between the man and woman approaching the event with wildly different attitudes. Señor C's privilege as an educated and wealthy white man allows him the luxury of shock; in contrast to Anya's resignation, which implies the nature of the experiences she has had as a woman of colour. The exchange concludes with irresolution between them, that intersubjectivity as a mechanism of empathy has its limitations when confronted by the rigid and isolating structures of inequality created by gender, race and societal security that obstruct understanding.

### **Confession and Narrative Control**

*Summertime* opens with a transcript of John's notebook, in which he writes about his life with his father; his Sisyphean task of laying concrete around their house and commentary on the current affairs of the time. Immediately there is a literary slant to the writing, with John's glaring use of third person. It is a strange and inappropriate device for a private notebook, but in presenting his own take on events at a remove, there is anticipation on his part that they would be discovered and shared. The Judeo-Christian tradition of confession is a strong but historically troubled motivator in Coetzee's fiction. Sam Cardoen explores Coetzee's narratives of cynicism and self-doubt, and speculates on the impact that confession has on *Summertime*:

As the confessant inspects his initial confession, he will discern a deeper underlying truth (or motive for confession) which the first confession had distorted or omitted and which in turn requires further confession. Every new confession is submitted to this process of revision, and every new confession brings the confessant pleasure or distinction at uncovering deeper layers of shameful motive. (Cardoen, 2014, p.95)

Attridge too describes Coetzee as being 'fascinated' by confession, claiming that 'much of his fiction partakes of the confessional, presenting characters who experience the need to reveal in language their histories, thoughts, feelings and desires, however private and shameful.' (Attridge, 2004, p.142) Elizabeth strives to conceal her lack of conviction in the intense opinions she shares with the world, which is a source of shame and confusion for her, most uncomfortably depicted in her public appearances. She draws a parallel between herself and Red Peter, the ape-statesman of Kafka's *A Report to an Academy*:

She is not sure, as she listens to her own voice, whether she believes any longer in what she is saying...One the other hand, she no longer believes very strongly in belief. Things can be true, she now thinks, even if one does not believe in them... (p.39)

The choice of her simian counterpart acknowledges wider debates on the significance of fictional primates as sites of intense debate on the production of subjectivity, and intersubjective interrogations of identity, such as those in the work of Haraway (1991) and Vint (2016), going some way to explaining her insecurities in the presentation of a certain 'self.' She certainly does not fool John in this: 'Her strategy with interviewers is to take control of the exchange, presenting them with blocks of dialogue that have been rehearsed so often he wonders they have not solidified in her mind and become some kind of truth.' (p.9) Despite the terrible anxieties she experiences in speaking, and the enmity she meets, the biggest draw for her in taking up the residency on the cruise liner (payment aside) is the opportunity to be listened to: '...people that age actually listen to what you have to say.' (p.35) There is an insinuation that the next generation of readers, her academic peers, and her family, are turning away from the 'oracle.' Her obsession with the slipping public mask of her radicalism shows this fear. This self-destructive drive to being heard at all costs, as well as the quasi-religious discourse she presents it in, gives the impression of a purgatorial cleansing; accounting for the distasteful reactions of her audience; that in her, they see reflected their own hidden shame.

The casual cruelty made easy by social media is certainly a major factor in the digital backlash. The volume of vitriol made possible by platforms have people rethinking what allowances should be made for violent and harmful rhetoric, and how active a role technicians should have in intervening. In the phenomena of 'trolling' shame is reciprocal; what differentiates the victim and the troll is that one is always on the precipice of being shamed. The triumph of a troll depends on harassing another person or group of people with the protection of anonymity; until that anonymity is taken away. Coetzee's characters are often tempted in this way. In *Summertime*, Adriana viciously attacks John's character despite describing him as 'tepid,' and an 'ordinary little man,' (p.196) who has had no real effect on her life.

It is in forgetting human impact that the 'casual evil' fought against by campaigns for greater responsibility in internet usage occurs. It comes back to the question of humanness, or bringing into focus reasons to be humane: what divides the human from technology is at this point undefinable, but the category of unacceptable digital behaviour acts as its antithesis, defining it against the grain of behaviour like trolling and harassment. Constant screen exposure to notable figures or celebrities breeds a disproportionate level of irritation and prejudice, untethered to the real-life actions of the subject in question. From the intimate settings of messaging services and online forums to the giants of the social start-ups, online-interaction has become simultaneously more democratic, in parallel to the number of users, but similarly, less 'social' in its conventional sense, as we will later discuss about Eggers' *The Circle*. The joint influences of the giants of social start-ups in the depersonalized settings of business and global politics is staggering; and jarring. Andrew Keen notes an instance of Mark Zuckerberg being describing by a former colleague as having 'zero empathy' (p.63), and despite the site purporting to connect people and promote 'social' online behaviour, this assessment of its creator is unsurprising. As Keen sees it: "in spite of – or, perhaps, because of – his inability to fashion a conversation, Zuckerberg has created the greatest generator of conversation in history." He also points out that in 'successfully monetizing the data exhaust from our friendships, family relations and love affairs,' (p.63) sites like Facebook are using our curiosity about others and our ability to empathize with them to gain financially. As such, these websites provide a very shallow and unfulfilled picture of who we are. (Keen, 2015) On Twitter, the picture is even bleaker. Its selling point is encouraging brevity, which can lead to overly abrupt and underpowered language, unable to convey much beyond basic information, pithy opinions, or depressingly, snippets of abuse. Laurie Penny characterizes Twitter as a perfect vehicle for the 'disinhibition provided by time-delay and anonymity,' offering an opportunity for the 'sort of gynophobic, racist and homophobic rage that women and men who are its targets often find incredibly frightening.' (Penny, 2014, p.178) Further proof of

the legitimacies of this anxiety over the fraying connection between empathy and digital behaviour comes from the sheer volume of work now being undertaken on precisely this issue. Project CEDE (Creating and Exploring Digital Empathy) is a joint venture between UCL, the University of Sheffield and the University of Lancaster, and 'proposes to unlock the digital communication of empathy... a major emission from online communication and digital personhood as a whole.' The very existence of the group draws attention to the glaring gap that has been created between empathetic behaviour and what is permissible online. The project attempts to reclaim the original ideas of the digital utopianism movement that the Internet can successfully platform productive and respectful interpersonal encounters. (Editorial, 2013b)

Coetzee's digital era novels promote a shared, benign suspicion of this environment. As Coetzee scholar Derek Attridge notes on Coetzee's characterisation: 'we can never remove the aura of something like irony that plays about these representations of human individuals – though by the same token we can never determine its strength.' (Attridge, 2004, p.7) In the book of letters between Coetzee and writer Paul Auster, Coetzee makes the following observation concerning the global recession of the late '00's and its 'artificial reality':

Compared with the weight and density of human history, the numbers on the computer monitors don't come trailing all that much historical freight behind them – not so much that we could not, if we truly wanted it, agree to dispense with them and start with a fresh set of numbers. (Auster and Coetzee, 2013, p.135-6)

Coetzee figures digital interactions as a construct in some ways 'apart' from reality, or simulating it. The transaction online somehow has less weight than a physical transaction. If this is true of a transaction of the human currency of replicating and sharing in the private feelings and anxieties of the other, it could be that a gesture of digital empathy has less weight than the 'real.' However, in this same letter Coetzee expresses a reluctant acknowledgement of the increasing power of the digital over world progress. Recalling the

panic of the 'Millennium Bug,' the fear was not of a crisis point, but a total absence of digital power, that if the numbers on the digital dials were to stop crunching, the world would halt because of how technicity entwines with the everyday. (Suitor, 1998) Where the novel and the website converge is in their possibilities to spawn new understandings of this feeling of conditionality where digitality is concerned, and this dual awareness of this invisible force. In this, Coetzee articulates the sense of being in the digital very successfully; it is always in the fringes of the narrative, as an untapped movement, as inscrutable and mysterious as another human mind. Broadly speaking, all cultural steps are an attempt to recreate and enrich the textures of human experience, and by using the page – whether leather-bound or on the screen – we can confront these divisions between individuals. The power of invisibility, played upon by Coetzee is also a central concern of the Scottish writer Ali Smith, who appears to share the same viewpoint that there is an ethical responsibility inherent in reading and looking: to reclaim narrative vulnerable to hijacking.

### **Surveillance: Ali Smith**

...I suspect people will come more and more in search of the long and stratified form, and also the ink form, even as our synapses adapt to and cope with widespread synchronic screen time, screen surface and spatial screen focus. (Smith, 2016b)

Electrical information devices for universal, tyrannical womb-to-tomb surveillance are causing a very serious dilemma between our claim to privacy and the community's need to know. (McLuhan, 1967/2008, p.12)

There is a powerful draw towards the eyes in Ali Smith's writing; from figures peeking through keyholes in *There But For The* (Smith, 2011a) to the watchful spirit commanding space between cameras and closed doors in the corporate hotel environment of *Hotel World*. (Smith, 2002) Her reflections on seeing and her extensive musings on art, photography and film make her a skilled documentarian of the age of omni-surveillance. The protagonist of *The Accidental* for example is a teenager who thinks about the millennium in terms of 'newness' – her few years existing in the old millennium lend her life a fresh quality she compares unfavourably to her parents and older brother. (Smith, 2005) It is a novel haunted by the fall of the Twin Towers, exploring the disjointed unspooling of traumatized time, and potentially 'uses fantasy and ironic motifs to question trauma's critical value', Emily Horton argues. (Horton, 2012, p.640) The novel attends to paranoia as a necessary addendum to twenty-first-century realism: seen through the eyes of its twenty-first-century subject. Astrid speculates on the level of awareness experienced by a cashier at a camera-heavy supermarket: 'does she realize she is not being recorded any more? Or does she think inside her head that she still *is* being recorded, by something that watches everything we do, because she is so used to it being everywhere else?'

(p.114) Freshly in the post-9/11 period, sociologist Gary T. Marx examined the approach of what he calls 'new surveillance': that 'probe(s) more deeply, widely and softly than traditional methods, transcending (natural and constructed) barriers that historically protected personal information.' (Marx, 2007, p.83) His language characterises new surveillance in an unexpected way; the 'softness' referring to the lack of immediate awareness or harsh impact on the surveyed, and this may be the key characteristic of digitally assisted surveillance.

Compare this to Foucault's reconstruction of a seventeenth century plague-ravaged town used as an example of a panoptical discipline society: 'a strict spatial partitioning; the closing of the town and its outlying districts, a prohibition to leave the town on pain of death, the killing of stray animals; the division of the town into distinct quarters, each governed by an intendant. (p.195) 'Old' surveillance is as performative as it is functional; the power, Foucault argues, comes from visual cues of surveillance and imposed borders being observed by the public, and becoming machinated in the collective imagination. This is operational in the hyper-aware double consciousness typified by *The Accidental's* Astrid. New surveillance exerts its power by bypassing this first step: because it is invisible it is realized. Visibility is one of the key 'dimensions' Marx identifies that signal the transition from 'old' to 'new.' Others include respectively lower proportion of involuntary consent to higher, intermittence to continuity (or omnipresence) and contextual to acontextual (although I would add a warning that new surveillance is acontextual to a point until information is used, which I will expand on). He also notes the migration of the 'Realism' of surveillance, from direct representation to a combination of direct and simulation. (Marx, 2007) Where new surveillance is visible, it always carries the possibility of being a simulation; think of a dummy speed camera, a CCTV camera without power, a sign in a neighbour's garden warning of impossibly high-tech recording equipment trained on their front garden. 'New' surveillance is also contingent to technologies of recording that are



exceedingly vulnerable to Moore's law of rapid obsolescence, and so another facet of its difference is lifespan.

How new surveillance works at its basic model can be understood as follows. Tools of surveillance work ceaselessly on data flows from various mediums provided by large scale networks (companies, websites) and individuals. (Lyon, 1994) There is a privacy buffer on the part of the individual; anti-spyware software, or an intimate language or syntax to a social network opaque to anyone else. For the most part, this information goes recorded but unchecked; only to be plucked from the stream in the case of an incident (As Astrid in *The Accidental* fantasises occurs with her own footage) which produces context. (Staples, 2014) This model has three prominent usages. Firstly, as part of the argument for such extensive surveilling, 'for the greater good.' Secondly, for purely spiteful means. I discussed the impact of data leaks as personal attack in the last chapter. Thirdly, a hybrid between the first two examples; exposures that often masquerade as being for the benefit of society with a vengeful or punitive sting. Examples that fit into this category as totems of online exposure in my view, are WikiLeaks, (Brevini, 2017) the Snowden case, (Sagar, 2015) and to some extent the Ashley Madison case; (Badham, 2015) exposures that trade-off security and privacy with the holy grail of contemporary truth and transparency, with dubious ethical credentials that could be termed 'new ambivalence'. WikiLeaks has beyond doubt changed the course of how we conceive of the visibility of information, and the global right to access it, as problematized fictionally by Eggers' *The Circle*. Ian Munro's take on it is one of axial and 'singular' resistance: '...because of the way it moves beyond micropolitical acts of resistance, such as whistle-blowing, towards an engagement with wider political struggles.' (Munro, 2017) The concept of the 'micropolitical' is worth bearing in mind in thinking of the way the lens turns in these novels.

What new surveillance amounts to is a society in thrall to surveillance that can be read as both utopian and dystopian, depending on your perception. Consider the ongoing rolling out of measures by the British Government; notably the Investigatory Powers

Act (colloquially known as the ‘Snooper’s Charter’) in December 2016. (Howse and Whitaker, 2016) It gives various regulatory and government bodies the power to access the internet histories of individuals. Critics of the Act point out its largely ungauged parameters, claiming that such powers are vulnerable to abuse because of their vagueness. (Rosen, 2016) Those exempt from these powers include controversially members of parliament, who more than most public servants should be held accountable for their actions. Snowden, whose case of leaking intelligence is emblematic of the new ambivalence, called the measures ‘the most extreme’ in the western worlds, and beyond ‘many autocracies.’ (Burgess, 2016) This designs a political situation of dire inequality in the rights to privacy, and one of sprawling legal uncertainty; conditions perfect for the cultural responses of rewriting utopia and dystopia, and examining the optics of the twenty first century.

### **Smith and New Surveillance**

Smith’s work epitomizes the mysterious quality of new surveillance in the layered and deeply subtle unfurlings of narrative, and yet offers a revitalizing critique of complacency in the face of it. As shown by the epigraph of this chapter, she is healthily suspicious of technology, yet it proves a productive subject for her. As a novelist, Smith explores and celebrates the fragile veil between the inner self and the demands of public life; a gift that led critic Alex Preston to rank her alongside Woolf and Salter as a writer ‘able to propel a narrative through voice alone.’ (Preston, 2016) She appears also to oppose the kind of homogeny in narrative that leads to a certain tyranny; what Chimamanda Ngozi Adichie calls ‘the danger of a single story.’ (Adichie, 2009) The novel *Autumn* was rush-published in the aftermath of the Referendum. (Smith, 2016a) It was much-cited in the press as the first ‘Brexit’ novel. (Kavenna 2016) The novel shows how invisible technologies have a traceable effect on public behaviour. A memorable passage shows the protagonist

Elisabeth, an art historian experiencing a personal and civil crisis, come across a path of contested common land at the end of her mother's village, sealed-off by razor wire and under the vigilant lens of CCTV. She is quickly seized on by a man in a security van, who accuses her of trespassing:

He opens his top pocket and takes out a phone. He holds it up as if to take her picture or start filming her.  
She points to the cameras on the fenceposts.  
Don't you have enough footage of me already? (p.141)

It is a fascinating moment of unmasking; the cameras installed to control the behaviour of passers-by have no effect on Elisabeth: she strongly believes in her right to be there, perpetuated by the pre-digitalized laws of the land, written, and archived, memorized, and repeated between citizens. The phone is a pure intimidation tactic; playing on the fears of 'going viral' as a legitimate and powerful means of public shaming. This passing moment recalls Lisa Nakamura's observation that new surveillance 'remakes the body as a social actor, classifying some bodies as normative and legal, and some as illegal and out of bounds. There is no form of surveillance that is innocent.' (Nakamura, 2015, p.221) The context of Brexit makes this passage impossible to depoliticize; a row over borders, rights and ownership, and a menacing lack of rational discussion. In a chapter that divides the grievances and joys of the leave/ remain voters following the referendum in Elisabeth's time, Britain is 'spilt in pieces...divided, a fence here, a wall there, a line drawn here, a line crossed there...' (p.61) The politics of the friction between intrusive bureaucratic forces and the inner lives of Smith's protagonists, her primary vehicle for doing so will be explored. The language of this chapter draws attention to the power of the binary, and examining its productivity as a structuring element in her work. The remain and leave campaigns described in the novel show the darkest manifestation of binary thinking on the scale of a divided society; two opposing sides unwilling or unable to see the viewpoint of the other, and each suspicious over the motives of the other. There is a similarly traumatic and family-cleaving event at the centre of *How to Be Both*. (Smith, 2014b) The death of a

mother creates an intimate arena of grieving family life, overseen by a curious spirit of an artist (Francesco Del Cossa), who has a strange kinship with her teenage daughter, Georgie. Del Cossa, a historical figure, has been reimagined and fictionalised by Smith; many works and some biographical details of the artist survive, and have been researched by Smith to animate the character. Smith's Francesco embodies the title, having been born female, but identifying as male in adulthood: and proves a kindred spirit to Georgie in her questioning of gender binaries. *How to Be Both* like *Autumn* was published with fanfare and a sense of novelty, as the book, structured in two halves, was shipped out with half the stock featuring Georgie's story as the first half, and the other with Francesco's. The novel explores the intimate dynamics between multiple pairings; the most prominent being Georgie and Francesco, Georgie and both parents and Francesco and both their parents. One of the most complex pairings is cat-and-mouse in nature. Georgie's mother reveals herself as the object of an unrequited crush, and Georgie becomes fascinated by this mysterious woman, Lisa. Despite Nakamura's assertion that surveillance cannot be 'innocent,' Georgie's amateur sleuthing and curiosity presents another side to the phenomena. She 'tracks' Lisa's movements, 'aping the ordinary disaffected teenage girl' and finding a 'talent in herself for being surreptitious' (p.183), but admits to herself that at some point she is unsure where she is or what exactly she is looking for, following a grudging but generous admission that 'somewhere in all of this if you look there's a proof of love.' (p.185) The conditional use of 'if you look' gives the tone of Georgie's story one of possibility and open-endedness; part of her coming-of-age involves the revelation of her curiosity, bringing her back into the fold of life. Smith's writing invites enthusiasm and joy in its very construction, Rebecca Pohl argues, and *How to Be Both* could be read as an invitation to participate in joy. (Pohl, 2017) As a charmingly pedantic and bright teenage girl, Georgie delights in wordplay, confounding adults around her with her knowing malapropisms, 'orgasm/ organism', 'monitor/ minotaur'. In her wrenching grief and isolation, she embarks on a personal project to question and then to understand

everything around her, as a response to the heightened state of scrutiny that the mourning period effects in others. She cannot make sense of the world without her mother; in a particularly painful moment noting 'how can it be that there's an advert on TV with dancing bananas unpeeling themselves...teabags doing a dance, and her mother will never see that advert? How can the world be this vulgar?' (p.15) Her wordplay becomes not just a teenage provocation, but a way of recasting the world on her terms. It is an attitude mirrored by Francesco's to some degree when the ghost appraises their work in the gallery; insisting: 'no, no, step back take a look at a proper distance at the whole thing...' (p.194) The narrative pauses, needing the reader to focus the lens and step away from the minutiae. The word pairings and the double vision need a feat of adjusting to distance in its purest form; from one understanding to another.

### **Gendered Experiences of Surveillance**

These couplings underscore the dynamic of watching and looking, and acting on this that propels the integral features of the novel. The fluid ability of novelistic discourse to enter the subjective space of consciousness, and visualize their physicality, straddles both spatial and controlled surveillance. When reviewing *How to Be Both*, novelist Patrick Flanery noted that it revels in the 'erotic charge of knowing one is being watched...(which) may be as great as that of watching', and that in the narrative 'surveillance is never static nor passive, but has the power to alter those on both sides of the act.' (Flanery, 2014) The novel is steeped in the history of 'looking'; and delights in evoking the various modes of doing so; being amongst other things a narrative of discovery about a woman who 'liked being watched.' (p.70) Contemporary Cambridge is signalled by a graphic of a CCTV camera, and Ferrara by an abstractly illustrated pair of eyes separated by a curving line taken from a tempera on wood Cossa icon of St. Lucia: together they herald the culturally dominant 'eyes' of each period. St Lucia is the proper figure to conjure in this novelistic

plea of going beyond seeing; being both the patron saint of the blind and of writers, and represented in the icon with the eyes in her left hand, and a quill in her right. She appears briefly in *Inferno* as a powerful instigator of Dante's descent into Hell: the so-called 'enemy of cruelty' (100, Canto II) charged with guiding the poet to the entrance; a force for compassionate understanding surely unlost on Smith. (Dante, 1320/2008)

It would do these narrators a disservice to draw parallels on such broad terms as their age and gender (not to mention defiant of Adichie's call), but Smith invests in the possibilities in using the 'teenage girl' identity as a tool of affect, and shaping expectations. Smith admitted in a web chat with Guardian readers the difficulty of rendering the speech patterns of teenagers in her work, that listening 'on the train, in the street, in the shops, on TV, wherever you are' was 'the closest thing resembling research I ever do.' (Smith, 2014a) The state of adolescence is a time of unparalleled exploration and exorbitant growth, and as such is a time of intense self-evaluation. (Abraham et al, 1987) Astrid and George share a process of exhausting awareness; at once of the people around them, looking and noticing and watching them, and then additionally the technology that repeats and keeps track of their movements way beyond human capabilities. Elisabeth's narrative spans her adolescence, and the strange protracted and unwelcome adolescence that settles on her into her thirties. Wearily she is '...living the dream, her mother says, and she is, if the dream means having no job security...and that you're still in the same rented flat you had when you were a student over a decade ago' (p.15); She becomes an object of intense awareness once again. Furthermore, Smith is exploring gendered experiences of adolescence. Georgie is mentioned as physically androgynous by del Cossa, and has a strong awareness of the stereotypes of teenage girlhood (boyband posters being an example). Her empathetic curiosity for a young woman on a porn site is further proof of her exploration of the expectations of gender: the adult film industry being on the most influential deciders of how 'male' and 'female' sexuality is performed. (Fisher and Barak, 2001) Astrid's mother observes her daughter 'poised before her own adulthood', and takes

stock of her movements: 'Everything about her asked her attention...leaning into the air in front of her as if about to lose her balance, mutely demanding...' (p.90) Her step-father reflects on his own golden adolescence being so unlike youth 'now': 'when nothing was new and everything was so already known', and his parenting of Astrid is later described as a 'consuming interest'. The attitude of the parent towards Astrid is markedly different to the visibly depressed, 'strange and unfamiliar' teenage son, tinged with irritation rather than understanding. Horton summarizes Astrid's fragility best; that in being 'fixated on feminine hygiene and video documenting as response mechanisms...she may somehow authorize her persecuted identity.' (Horton, 2012) Her documentary project, or self-surveillance becomes an active force of self-assertion in response to the scrutinizing parental, disapproving gaze. The critical body of work on visual recording technologies and gender is extensive. Teresa de Lauretis's claim that "gender . . . both as representation and as self-representation, is the product of various social technologies, such as cinema, and of institutionalized discourses, epistemologies, and critical practices, as well as practices of daily life" is a mantra to keep in mind. (De Lauretis, 1987, p.2)

### **The Screen and the Potential of Art**

The novel dwells on what it is to appreciate a piece of art, and to make connections with what you see, to your own experience, knowledge, and feelings. John Berger memorably explained appreciating art as an instinctive self-orientation: that 'seeing...establishes our place in the surrounding world; we explain that world with words, but words can never undo the fact that we are surrounded by it.' (Berger, 2008, p.7) The novel creates movement from one frieze and image to another to prove that 'nothing's not connected'. (p.106). The passage that takes place in the art gallery amongst Cossa's salvaged works is authoritative in its execution; needing the reader to see the gallery through Georgie's eyes, following the connections and associations she makes, and her experiences that give

weight to them. An image of Jesus is 'a bit friendly, like a well-worn human being or a tramp,' his angel fleet 'holding torture implements like the people in a S&M session online but really unlike an S&M session in their calmness.' (p.155) It is a passage that simultaneously evokes the approach of young people to new experiences and the bricolage of culture enabled by the internet; thoughts presented like clickable hyperlinks, from one page of information to another. This effect of 'displacement,' prose interjected with unexpected references that follow an intimate logic in this way lend well to the hybridized structural form between realism and simulation.

Neuroscientist Antonio Damasio likened the impact of the screen on consciousness to 'a veil thrown over the skin to secure its modesty' which 'partially removes from the mind the inner states of the body.' (Damasio, 2000, p.28) In reflecting the events of the three novels in the lenses of cameras and screens of gadgets, Smith is questioning if indeed a screen is a dissociative tool. Cossa sees the smartphone as a holy 'votive,' as they cannot account for why else modern people would be 'so heavy in their despairs to be so consistently looking away from their world and so devoted to their icons.' (p.230) Mobile technologies become a statement of both generational and temperamental differences between Georgie and her mother. Georgie's transparency as a subject is linked to the open design of her ever-present iPad. Just as her grief and fury is obvious to those around her, what she seeks out and tries to do on her screen, from her surveillance of Lisa to her naïve ritualistic watching of the porn video, is seen by the adults around her. Her mother's phone becomes a Grail-like object to her, being 'unusually private' for a person who claims to be an 'open book.' In a passage in which Georgie reflects on what finding her mother's phone may bring her, she lays out the contradictions of her mother's life and persona; lamenting that she will 'never know what song or songs her mother listened to every day to do the dance thing, or on the train, or walking along the street.' (p.23) The mobile is at once a prosaic object, part of the ordinary ephemera she cannot conceive of having survived her mother (indeed, the house is 'still full' of her belongings), but made exceptional by the



intimacy it embodies; able to create a veil between the inner and public lives. In her precocious mind, the phone has the potential to be a 'stand in' for her, or a marker of a continuing life force. Smith gestures to the great joke of the digital era- the helplessness of a millennial with a lost phone – and creates something deeper and more humane. Smith's threads of touchscreen technologies underscore the problems of intimacy and distance that Georgie tries to navigate. The 'degrees of sensuality' teased out by Laura Glitsos in her work on somatechnics in touchscreen-enabled music media go some way to explaining Georgie's fixation. Glitsos explains: 'Being affected by an event involves a holistic process of meaning-making and bodily feedback that interact and build from each other, even in the subtlest of ways.' (Glitsos, 2017) The tactile power of intimate haptic technologies forges emotional links. The video clip of her mother dancing with Georgie's grandmother moves Georgie not only because of what it signifies, but how easily she can watch it, she always keeps it around her and finds assurance in a future where the clip migrates from device-to-device. The powers of recording and keeping find their happiest usage in framing moments of untampered love, which is a paradigm echoed by the benign and empathetic presence of the watchful ghost who seeks to understand Georgie.

### **Smith and Modern Myth**

The politics of Smith's narrative world, as previously mentioned come from seeking out states of mind that arise from the frustrations of mediating the public (and the ever-changing moods of the public) and the private. A striking trope of her work is her use of myth, which Northrop Frye calls 'the most abstract and conventionalized of all literary modes', to draw out the intricate and wholly relatable tensions in everyday situations. (Frye, 1957) Thinking about Frye's descriptor of myth, it seems a natural fit for Smith's subversive realist mode. Helena in *How to Be Both* closely follows an observation that 'it's not like we live in mythic times' by another: "it's not like the government would minotaur

us.... they'd never do it to ordinary people, say through their emails or mobiles,' indicating it's possible that these are indeed mythic times. Barthes understood the 'system of communication' perpetuated by myth as a purely personal endeavour:

Mythical speech is made of a material which has *already* been worked on so as to make it suitable for communication: it is because all the materials of myth (whether pictorial or written) presuppose a signifying consciousness, that one can reason about them while discounting their substance. (Barthes, 1957/1993, p.110)

The opening spiral of Francesco's resurrection offers a prime example of Smith's use of myth: 'the fast coming down/ of the horses in the story of /the chariot of the sun when the/ bold boy drove them through...' (p.189). The prose nods to myths so culturally familiar that their details are needless; their archetypes so close to the fabric of life that they can be twisted to fit the riddles of subjectivity and self-narrative, as Barthes sought to prove in the Sixties with his mediations on mass-culture and the creation of the modern self. Through myth, Smith challenges the autocracy of normativity, to borrow Nakamura's term, in areas of class, sexuality, and gender. *Girl Meets Boy*, a novella of 2007 echoes and recasts the myth of Iphis, as a young woman attempts to reconcile her sister to the idea of her sexuality when she falls in love for the first time. (Smith, 2008) As well as explicitly referring to myths and drawing out their parallels and proving that the problems of being human are enduring and largely unchanging in nature, Smith's very novelistic voice dwells between real and mythic in its construction. (Doloughan, 2010) In *Autumn* the projections of David's comatose mind, fantastical in nature are interwoven with Elisabeth's real-time observations. The first glimpse into his consciousness dwells upon a shore littered with dead bodies, with living holiday-makers coolly sharing the space; he 'looks from the death to the life, then back to the death again' (p.13) and evoking William Blake, wonders 'How many worlds' there are in a 'Handful of sand.' Elisabeth's own response reflects the fragmentation of her world view. What this melding of myth to contemporary prose works

towards is a fractious and stylized web of images and meaning. Frye's work on the mythic goes some way to explain this, that in myth:

...we see the structural principles of literature isolated; in realism we see the same structural principles (not similar ones) fitting into a context of plausibility, which ultimately poses certain technical problems for making it plausible, and the devices used in solving these problems may be given the general name of displacement. (Frye, 1957, p.135)

There is a playfulness and reluctance in Smith's relationship with the realist responsibility of plausibility that invites a second glance, in a similar way to Angela Carter, with whom she shares a fascination with film. Invoking cinema gels the real and the mythic in contemporary literature. Carter commented in interview her love of the cinema's ability to reveal '...the tension between inside and outside...with its mix of the real and the false...public and private at the same time.' (Filimon, 2014) Smith finds magic equally in the rendering of a ghost, monster, or minotaur on the page, and a teenage girl performing 'surly teenager' to the public gaze, formed by both crowds and the cameras. William K. Ferrell, writing about the role of film and literature in creating modern mythology summarizes the importance of being mindful of myth: 'By the presentation's incorporating a concrete sense of reality, the story has a base from which the reader or viewer may connect to a truth that provides a base for myth.' (Ferrell, 2000) Developments in digital imagery supplement late twentieth and early twenty-first-century cinema, like art. The invention of the photograph two centuries before prompted a rethinking of surveillance and the 'real': as Susan Brind explains: 'By the end of the nineteenth century, police practise of surveillance (...) succinctly did away with any debate over the photographic 'real', with the photograph providing silent evidence of identity.' (Sutton *et al.* 2007) The minotaur becomes a central figure in Georgie's wordplay; another familiar myth examined part-by-part in the light of its durability. The beast itself is a symbol of transgressive states of being – between species, outside rational human behaviour, possessing an unnerving and unslakable anger and hunger; of such fearfulness that Jorge

Luis Borges suggested that the minotaur ‘more than justifies the existence of the labyrinth.’ (Borges, 1970) The insistence on equating the beast with ‘monitoring’ forefronts her feelings of paranoia, and there is certainly an element of ‘monsterring’ the powers of surveillance she suspects are focused on her. However, there is a sense of kinship with the beast. She turns her thoughts to the memory of her mother: ‘Think of her smiling, looking the minotaur in the eye and – winking.’ (p.180) The minotaur shifts from an embodiment of fear to an image of resilience. Helena’s sportive usage, taken up by Georgie creates a compelling image of a population having the potential to subvert their world, as well as setting them apart from those watching. By re-questioning the structures of contemporary literariness, Smith equates the mythic and canonical with the quotidian. The ‘Subverts’ created by her mother as an art project are designed to interrupt the passive act of web browsing with social justice pop-ups are another example of this dynamic. Confronting what is at the centre of the web of the unseen, and narrating the journey of it with open eyes liberates Georgie; who has the realisation that the ‘maze of the minotaur is one thing. The ability to maze the minotaur back is another thing altogether.’ (p.185) The structure of the labyrinth itself is an attractive proposition to writers, like Smith, interested in form, and the slow revelation of information and narrative. Ovid describes its construction in *Metamorphosis* as a puzzle to last the ages:

No differently from the way in which the watery Maeander deludes the sight, flowing backwards and forwards in its changeable course, through the meadows of Phrygia, facing the running waves advancing to meet it, now directing its uncertain waters towards its source, now towards the open sea: so Daedalus made the endless pathways of the maze, and was scarcely able to recover the entrance himself: the building was as deceptive as that. (Ovid, 8AD/2004, lines 152-82)

This passage figures the labyrinth as a work of human ingenuity that comes close to surpassing the mastery of nature’s design: and one that outpaces its own creator: surely an irresistible analogy for narrative. The word labyrinth’s post-Classical application in published works vary from medical terminology, to sacred pilgrimage, but most often leap

from its architectural use to the epistemic, which has drawn writers to its usage in droves. The deceptions and changeable currents drawn out by Ovid's poetry, inherent in its strange geometry have similarities with the construction of narrative; particularly one reluctant to divulge its mysteries. A writer Smith draws from often, Borges, wrote in the introduction to his most famous collection, *Labyrinths*: 'The world is a book and the book is a world, and both are labyrinthine and enclose enigmas designed to be understood and participated in...' (Borges, 1962/2004)

### **Collage and Apophenic Thinking**

The search for knowledge and the validation of perception is central to both Georgie and Francesco; and evidence for this is the recurring image of the wall; not just as a part in encasing and revealing fragments of the world, but as a means of expression and possibility. The novel's epigraph borrows from Sylvie Vartan's song 'Le Testament': 'J'ai rêvé que sur un mur blanc / je lisais mon testament': to prefigure the confessional and reflective nature of both 'testaments' in the novel. The damp wall in Georgie's room covered in teenage confetti of boy bands and pictures that have no meaning to her becomes talismanic of her wishes to protect her father from added stress. Beneath this, the stains are like 'a tree-root network,' 'country lanes' and ocular veins, but this train of thought is dismissed by Georgie as 'a stupid game. Damp is coming in and that's all there is to it.' (p.11) However, the novel unfurls to show how beneficial these processes of thought and imagination are; again, the labyrinth of thought descends, distracting Georgie from the rawness of her grief, and linking her to her allusive and inquisitive mother. Although in frustration Georgie thinks of a conversation with her mother as being like 'talking to a wall,' there is benevolence and comfort in that ability to project and expand. The wall, like the screen offers opportunity. Each time George finds herself unable to 'think about one

thing, instead of 15 at once' (p.41), a common digital complaint, and feels 'disempowered by information' (p.42), moments of peace and focus in her voice give balance.

There is a similarly emancipatory function to the blank walls brought to life by Francesco. The creation and legacy of the artist's magnificent frescos at the Palazzo Schifanoia drive the narrative of the second half; and it is telling that Smith chooses to bring to life novelistically a painter remembered not just for this work of genius, but for a piece of correspondence seeking recognition for his ingenuity and artistry. Additional weight is added in Smith's reimagining of the artist's gender fluidity. The real-life letter (in archive in Modena) is deeply persuasive: inscribed with the word 'Justicia,' it aspires way beyond the immediate concern of the rate of pay. As Joseph Manca notes of Cossa's claim to 'have been treated and judged and compared to even the saddest studio hand (garzone) in Ferrara': 'By using the word "judged," Cossa alluded to a key aspect of (his patron's) vaunted image, hoping thereby to win over his lord, to whom injustice was anathema.' (Manca, 1993) There is a moment in the novel where the artist has the mixed blessing of seeing their own legacy in an art gallery, outpaced by a rival ('4 Cosmos to my 1 saint.' (p.195) Cossa the character is perceptive and has an instinct for self-positioning, affirmed by their immediate concerns on their resurrection about their place in culture. From a young age, the artist claims to have understood 'that people do not always want to know how they are seen by others' (p.213). Cossa's purpose is to estrange the modern world, and to reflect on what defines the interiority of the twenty-first-century subject, which goes some way to explaining their affinity with Georgie. Both Astrid of *The Accidental* and Francesco have a deep understanding of what it is to leave testament behind, and the power of an artefact. Astrid's grimmer ruminations of her footage helping the police gives way to her more existential thoughts on self-memorializing, and the impact of the visual in shaping history.

### **Memorialization and Digital Posterity**

I touched upon trauma's central occupation in the twenty-first-century experience, and I want to expand on the relationship between this framing of experiential time in the act of memorialisation, and the role of footage and imaging. Sara Hebert's work on the function of digital memorization to collective grief illuminates the nature of online participatory culture, and furthers a line of questioning taken up by Kittler before her on the value of immaterial traces. Her case studies focus on twenty-first-century milestones in US history and include tributes to Iraq veterans, victims of Hurricane Katrina and 9/11, and paint a picture of how new media has shaped memorialization into activism: an intervention in challenging the hegemonic digital practices of the type I noted in this introduction. She notes the metatextual quality of online tributes on platforms such as YouTube, drawing attention to the feature that gives higher visibility to comments most enthusiastically approved by the community, and additionally notes that due to a lack of moderation, there is in fact an intrinsic process of democratization unfolding through 'negotiation with users,' 'opening dialogue,' and 'allowing dissenting views to be exposed.' In her words: 'traditional memorials promote one particular way of viewing tragedy;' and that these new technologies applied to the process of public mourning allows, in a Durkheimian way, a plurality that creates 'diversity and discourse.' Her conclusion notes that 'Without equal access, collective memory will never truly be democratic and these digital spaces will only serve a particular group of people.' Hebert's research points to the positive power of free speech and the tapestry of online voices that can be achieved by it; a constantly evolving, living memorial that is radically different to conventional methods, that more accurately imitate the frictional and contradictory experience of private grieving and processing. Public memorialization, Hebert suggests, has radically evolved through recording and hosting technologies in promoting the overspill of the private into the public. (Hebert, 2008)

With its seeping political gaze trained on the new millennium, *The Accidental* probes into instant memorialization, its value, and the acts of cultural production that work as a way of looking in the present. The internet hovers spectrally outside the bubble of the holiday home; tied to the concept of 'broken time,' as Magnus imagines it. Amber's ambivalent and quasi-supernatural presence is deeply disruptive to the fabrication of time; she enters to halt both organic reminiscence, and to destroy the technologies trusted to absorb the overflow of memory. Critics have often noted Amber as a figure of rupture, sent to shake up an unhappy family in stasis; and this applies to her role in reconfiguring the conservation of moments. Playing the tapes of her summer, Astrid discovers that the video evidence of her has been mysteriously wiped: "There was no dawn footage of Amber. There was nothing. It was as if Amber had deleted herself, or was never there in the first place and Astrid had just imagined it.' (p.225) She affords Astrid one memento, a photo of the girl: 'a moment of what Amber literally saw through the tiny camera window. That is amazing to think of it like that, like them all fixed...standing outside the house like that forever, but really being something no more than a split second long inside Amber's head.' (p.228) Amber refuses to indulge Eve's nostalgia, breaks Astrid's camera unprovoked, and exorcises Magnus's darkest impulses. She is absolutely the opposite of the 'exotic fixative' that 'gave dead gone things a chance to live forever,' (p.163) in the process showing Michael up for his lack of vision and awareness. Astrid, who worries that she will be useless to Amber without her camera and her ability to record, is soothed as she is drawn into the same disruptive and time-obstinate sphere as Amber, delighting in her bare family home. To some extent, Eve appears as a preserver of non-disruptive memorialized time; having capitalized on her invented genre of 'autobiotruefictinterviews' (p.81) her 'Genuine Articles' series imagine the 'alternative aftermath' of real people in history. Despite her claim that '...fiction has the unique power of revealing something true,' the charge of inauthenticity persists, perpetuated by the covert claims of the potential genre classifications of her work. A telling newspaper review issues a rebuttal to her view: 'We



need stories about now, not more peddled old nonsense about them' – and the destructive power of the present embodied by Amber gives the solution. The 'stripped' home that the Smart's return to could lend the novel a rounded fable-like structure, that Michael accepts (p.270) in his de-nuancing of the series of events; save for the solitary presence of the answerphone: 'rewinding itself and switching itself off' (p.269), stuffed with messages, that continues to accumulate half-transmitted voicemails to the end. With all the memorializing of the summer erased, the camera thrown off a bridge, and Eve confronted with '...her own unpictured walls and unfilled rooms, no trace of her left, nothing to prove that...whoever she was, had ever been there at all.' (p.295), the novel concludes on a half-despairing, half-emancipatory note; freed from the constraints of forced memory, with the voicemail ever recording, and capturing nothing new.

The evolution of memorialization is more starkly drawn between the experiences of the twenty-first-century family and the palazzo walls that crystallize a moment of wealth and cultural influence. During a counselling session, Georgie describes the process of scattering her mother's ashes in her favourite places, including stealthily in 'cracks and crevices' of galleries and theatres. She reflects on it as 'not very metaphorical,' but as she claims earlier that she is 'tired of what stories are meant to mean.' (p.179) There is a gentle tension between the drift from conventions Georgie stands for, and the formalized (and at heart impersonal) works of Cossa. Ensnared far in to the narrative of what he/she has seen of Georgie's life, Cossa describes the modern world as 'purgatorium' (strengthening the Dantean echoes); taking cues from Georgie's feelings of liminality. Additionally, Cossa acts as a regulator of chronological narrative, marking the height and the acceptance of Georgie's grief. Tracing the development of the understanding between Georgie and Lisa, Cossa refocuses the lens from the 'kind words' and gestures towards peace-making to the seasonal changes around them; until the wind 'throws' blossom 'into a dance,' (p.326) as if the twenty-first-century women have stepped out of his spring-time friezes.

Surveillance therefore plays in an elegiac register for Smith; who constantly stresses the potential for posterity in the most joyous outbursts of her work. She appears to reject the Baudrillian model of a dark contemporary hyperreality in which the individual becomes 'a pure screen, a pure absorption and re-absorption surface of the influent networks,' (p.27) and the more cynical imaginings of those like him who fear the reductive effect of the virtual world on the individual. (Baudrillard, 1988) Instead, Smith's work fashions a space in which a reader can seek a redefinition and clarification of what it means to be a subject in this point of time, and not merely an object. In the tradition that connects Barthes and Baudrillard, the spectre of an evasive layer of 'reality' from photography to simulation has given an impetus to reassessing how we see others and ourselves, and where the boundaries of those subjects are. These anxieties are aired through a subtle motif of compromised optics: Georgie often castigates herself for giving free rein to 'paranoid nonsense,' paranoia being of course an experience deeply disruptive to sensory perception. An S&M scene of an actor temporarily blinded by eye drops makes a great impression on Georgie, which starts a string of speculative scenarios in her imagination. Far from the fearful passivity of the screen as an agent of stasis, what emerges from the tropes of murals, footage, collage, and collection is the ideal of the living memorial; at work, long before death sets in. Smith's novels are a resistance and a call to arms, in the same vein as the memorials collected by Hebert: democratic, ambivalent to convention, and open in their construction.

### **Binary Thinking and Digital Inclusivity**

I mentioned in the introduction to this chapter the complexity of Smith's usage of binary opposition as structuring element. Smith's draw to the metaphor of looking in unpacking rigid oppositional frameworks recalls Haraway's claim that 'Vision can be good for avoiding binary oppositions': citing a need to re-value embodiment in approaching, in her

example, scientific objectivity: but leading to a theory of 'situated knowledge': an approach gestured towards by Smith in embracing narratives of dissent and reframing. (Haraway, 1991) The strongest contemporary associations with the term are of course the binary code that generates computational activity, and in application to gender identity; and an increasing concern that while binary is the perfect conduit for technology, it is less adroit in organizing human matters. Appraising the legacy of George Boole, the inventor of the Boolean algebra that laid the foundations of binary code, Conrad Wolfram argues that 'he helped to entrench a damaging way of thinking that permeates society.' (Wolfram, 2015) The acceleration of the usage of 'non-binary' as an identity draws attention to its tendency to claim terms in an exclusionary way. In the polemic 'The limits of pure critique,' Kenneth J. Gergen traces a critical tendency following postmodernism to hold critical conversation within a 'war-not war' structure. The binary he sees as a 'symbiotic enterprise, typically requiring assertion as its inspiration.' He claims what is at stake in pursuing such lines of enquiry, that '(e)ach interlocutor, in the face of the other, loses dimension; all human characteristics, relationships, investments and viewpoints unrelated to the binary are suppressed.' (Gergen, 1994) This is at odds with a writer that embraces the polyphonic possibilities of the novel in drawing out voices of both the living and the dead and giving them space to be heard. Reporting on a talk given by Smith following the novel's publication, Ben Winyard described the writer detailing 'the fictional creation of character as a mode of channelling, in which characters arrive fully formed and the task of the novelist is to give them the necessary attention and time to allow their voices to come through.' (Winyard, 2015) As Gergen claims, 'once reality has been struck in terms of the binary, the contours of the world are fixed.' (p.61) I discussed Egan's exploration and rejection of the binary in her exploration of the possibilities of the network in its place, and to a similar extent, for Ali Smith the internet has infinite potential in the combinations of binary symbols embodied by the internet, for better or worse.

One of the most compelling points of connection between the narratives of *How to Be Both* is the shape of the helix, which is as powerful to art as the golden spiral, with structural stability and symmetry. We are made aware of the importance of the shape when Georgie is drawn to the sculpture modelled after the helix, which makes a refrain in the shape of the passage marking Francesco's resurrection. She sees it as a 'joyful bedspring,' and a 'kind of shout, if a shout to the sky could be said to look like something.' (p.172) It is possible that a helix is a more direct challenge and solution to the problem of the binary. It incorporates two stances, but consistently bridges them together with finer strands, with satisfying regularity and integrity. The figuration is mirrored in Georgie's wordplay; two opposing or jarring ideas, gently knitted together with fine and mischievous connections. Smith's lyrical and visually beautiful usage of the helix shape to organize the text during Francesco's resurrection underscores its generative nature. Georgie sees with extraordinary clarity that 'anything that forced or pushed such a spring back down or blocked the upward shout of it was opposed to the making of what history really was.' (p.173)

Furthermore, the shape suggests a connection between the two that is a biological or chemical permeation of kinship. Francesco remarks that '...the best thing about a turned back is the face you can't see stays a secret': and this may be the kernel of how Smith's writing has been shaped by surveillance. As previously discussed, the psychoanalyst and theorist Josh Cohen perceives how we conceive of the twenty-first-century private self as a necessary deception; concluding that the divide between public and private is 'finally incommunicable, that the passage between my inner life and yours is hopelessly treacherous...' In keeping with the sprightliness of Smith's writing, Cohen further concludes that 'what I've tried to claw from the interior has been lost or distorted somewhere in the tunnel that separates us,' (Cohen, 2013, p.203) Despite the despairing tone of this proclamation, Cohen and Smith insist on the hopefulness inherent in this.

John Perry Barlow hoped that the web would reveal 'a world that all may enter without privilege or prejudice according to race, economic power, military force, or station of birth.' (Barlow, 1996) The contemporary evidence proving that this is not the case is writ large across social media platforms and in the fabric of our culture; but is concretely brought to focus by thinkers like Chun and Nakamura whose work probes into the role of discrimination in inscribing the future behaviour of software. (Chun, 2013) (Nakamura, 2008) Examining the works of artists such as Smith for whom the hidden or overlooked narrative is given the opportunity to claw back space becomes vital. Tim Berners Lee's warning that 'we must remain wary of concentrations of power' (p.52) when dealing with an increasing monopoly on digital culture becomes a call to arms for those shaping these currents into a cultural wave. (Taplin, 2017) Smith's take on surveillance mirrors the girlish efforts of Georgie to reclaim the girl on her iPad screen; doing it not only 'in witness', but also 'by extension' to take a stand against 'all the unfair and wrong things that happen to people all the time.' (p.37)

### **Taste: Dave Eggers**

Individual web pages as they first appeared in the early 1990's had the flavour of personhood. MySpace preserved some of that flavour, though a process of regularized formatting had begun. Facebook went further, organizing people into multiple-choice identities, while Wikipedia seeks to erase point of view entirely.

If a church or government were doing these things, it would feel authoritarian, but when technologists are the culprits, we seem hip, fresh, and inventive. (Lanier, 2011, p.48)

Lanier's descriptor of the trajectory of personal curation online gives a perspicuous sign of what is at stake in presenting the web with the 'flavour of personhood.' Personal taste simmers away in the digital novel, as a signifier of the human behind the avatar, and therefore vital to the lifeblood of digitality. What accentuates *A Visit from the Goon Squad's* status as a network novel of the era is that its characters generate considerable social capital from being tastemakers, and embodying a certain cultural cosmopolitanism. Smith's protagonists too are shown to understand the social function of gathering cultural acumen, in the exploration of bricolage and cultural knowledge. The expression of personal taste within the online arena is most closely examined, however, by Dave Eggers; I would argue that his novel *The Circle*, a divisive piece of work about Silicon Valley is most compelling when read as a satire on taste; and shares concerns with McCarthy on authenticity, and as Lanier said, the potential authoritarian implications for 'personhood.' *The Circle* is in many ways an example of its own taste agenda – the language is strikingly operational, the characters merely ciphers, and the sequence of events unfold without trickery – there is little to linger over in its realist mode of speculative fiction. By situating a fictionalized ascent into taste- making through arbitrary liking and disliking within this sparse reportage, Eggers is reinforcing a point about how seriously one should take online expressions of aesthetic judgement. His body of work, from the semi-fictional memoir *A Heartbreaking Work of Staggering Genius* to the Hurricane Katrina narrative *Zeitoun*

displays a decidedly contemporary approach to working in and against genre, similarly to Egan. *The Circle* shows an appreciation for the conventions of the dystopian novel, and adheres to tropes I have outlined: a malleable outsider becoming an insider, a cynical soothsayer, and a system of comprehension or a language within the dystopia that works to undermine the population, and unsteady their comprehension of events.

If Jennifer Egan and Ali Smith are at the ambivalent-to-positive end of the spectrum in embracing digital culture, then Dave Eggers occupies the opposite end of extreme cynicism on the capabilities of digitality to enhance the quality of social interactions. The Cassandra figure of this novel, the ex-boyfriend of the protagonist Mae Holland expresses to her his concerns about the encroachment of Silicon Valley: "I've never felt more that there is some cult taking over the world. " The cultish nature of the company is obvious throughout the novel; and is burnished by the self-contained allusions of the book. Eggers has said little of his influences of the book, and has, litigiously, avoided references to existing companies. Despite strenuously avoiding the word 'dystopian' for this reason, instead, the novel slyly poses the question: 'who else but utopians could make utopia?' (p.31), *The Circle* takes inspiration from the subgenre's concerns with the mistrust and the devaluation of the expert in favour of deferring to the hive mind, a classic signifier of cult psychology. *The Circle's* uncanny cast of Silicon Valley bureaucrats, bunker-like setting, and discourse formed exclusively of buzzwords has much in common with worlds of Forster's *Machine*, and in its engagement with social and political pressures, Aldous Huxley's *Brave New World* and Yevgeny Zamyatin's *We*. Eggers' creation is a fictional social-networking company called The Circle, a self-consciously innovative and upwardly mobile employer. The narrative traces the insidious sea change (underscored by a measure being worked on called, in case you missed the build-up, SeeChange) in increasingly totalitarian measures on its international users, with an imperialist agenda of 'converting' all internet users into Circlers. The novel lampoons the distinctive culture brought about by Silicon Valley, while keeping the menacing possibility that an internet-based company could wreak political

havoc, given the opportunity. One of the ways in which the novel achieves this is through a bitingly contemporary assessment of how the digital generation express their personal taste.

### **The Evolution of Taste**

Before we delve into the ideas that Eggers engages with that situate the digital expression of taste alongside anxieties about political oppression and technophobia, I want to draw out the existing anxieties of 'taste' from its conception in the 17th century to more recent history. The formation of a criteria of assessing the value of goods and cultural capital came about in response to commodity culture and the rise of global trade and expansionism. Lord Shaftsbury's (Anthony Ashley Cooper) moral philosophy emphasised the role of beauty and good taste in the formation of the abilities to make good judgements, rather than relying on the influence of scripture and individuals being led into religious fanaticism. For Shaftsbury, the cultivation of 'good moral taste' is an innate skill fully realized by proving it to society. (Shaftesbury, 1711/1999) Similarly, as an Enlightenment scholar of the Lockean lineage, Immanuel Kant like Shaftsbury gives serious thought to the processes behind 'taste.' Kant's philosophy of taste positions the phenomenon as neither cognitive nor logical but purely subjective, based on sensations and their corresponding pleasure; then elevated to a 'separate faculty of discrimination and estimating.' He locates taste in 'the faculty of estimating the beautiful,' declaring that in themselves, 'judgments of taste do not even set up any interest whatsoever. Only in society is it interesting to have taste...' (Kant, 1790/2000, p.37) Kant's understanding of the subjective nature of taste is challenged by the disruptive model of the expression of personal taste accommodated by digitality, that goes beyond Kant's complication of normativity that provides the first constraint on its expression. What happens then when we take this principle of personal taste and the power of the network, that is by nature



subjective, initially dependent upon sensations beyond the reaches of rationality and then filtered societally, and then apply them to our current climate, in which people outsource personal preferences to algorithms? One glaring possibility is that websites with the financial incentive to do so play with the phenomenon of the online search and capitalize on the power of crowd mentality, without the deference to the 'subjective' interventions prized by Kant and Shaftesbury. They can let cybernetics run their course and adapt to learnings by reshaping consumer horizons, or intervene on behalf of partners, or to help themselves.

Following on from the networking society and taking influence from Romanticism's introspective tendencies, the nineteenth-century art critic John Ruskin interrogated the interplay between taste and subjectivity. A doctrine of the age is often attributed to Ruskin, that what you like can reveal who you are. Ruskin has shaped the way we conceive of personal taste in a way that continues to influence creative and critical endeavours, and the intentions behind them. In Ruskin's famous Manchester lectures of 1865, since published as *Sesame and Lilies* he focuses on the damaging effects of chasing position and social respectability to self-education; a central anxiety of the nineteenth century consciousness. (Ruskin, 1865/2002)

The lectures are notable in their politics for two reasons. The first is in the distinctions they make between how a man may use his time, and a woman may use hers. In contemporary criticism, scholars have focused on how Ruskin's ideas of gender reflect or subvert the dominant patriarchal values of the mid-Victorian period. Indeed, the gendered binary division of the lectures, 'Of King's Treasures' and 'Of Queen's Gardens,' offer an interesting comparison of what Ruskin perceives as masculine and feminine duty in the sphere of self-education and the development of 'taste.' The second is in the distinctly classed approach taken by Ruskin.

In the preface to the 1882 Edition of the joint lectures, responding to criticism, Ruskin points out that they were 'written for young people belonging to the upper, or

undistressed middle classes, who may be supposed to have choice of the objects and command of the industries of their life.' (p.25) In other words, he meant it for young aesthetes untroubled by the burden of working, and from family money. Ruskin insists that the English of the era are too focused on education as means to an end of wealth; and are therefore the poorer for it. He idealizes the cultured man as 'active, progressive, defensive...eminently the doer, the creator, the discoverer, the defender.' (p.77) However, he offers no practical solution as to how to reconcile the admirable pursuit of culture with the business of living; a strange omission in the period in which a crisis of social inequalities laid the foundations of what we recognised as the welfare state. Therefore, the impassioned 'state of the nation' lectures give a fascinating, irresolvable central flaw. Ruskin's democratic social vision to involve all men in a 'kingly' pursuit of education, and women too in offering a community-driven change for the better, may in practice only apply to a fractional percentage of the population of that time. Furthermore, he neglects to factor in the percentage by nature unmotivated by or with objections to the notion of duty, Ruskin's prized virtue. But in his attempt to prescribe a balm for the social biases of the era, he fortifies class rigidity. His assertion that a 'false accent or a mistaken syllable' has the power to 'assign to a man a certain degree of inferior standing for ever' (p.36) undermines his point that being 'incapable of sympathy' (p.46) is an unforgivable fault, verging on the 'vulgar.' This high-minded singularity of moral vision, coupled by an unarguable snobbery resonates in the post-surveillance society we find ourselves in; being able to tap into the personal experiences of others, and live life with a communal awareness of the world, has often led not to compassion but a deeply unsettling need to see others fail. The talks took place during the transitional Aesthetic Movement, a period of fashion that celebrated beauty and art for their own sake. The central problems of Ruskin's lectures in how to achieve his cultural utopia have endured; namely upholding a sense of democracy in an enterprise that is by its nature elitist, the boundaries of a cultural

education, and the struggle between the mutually-destructive impulses of the individual and the dutiful citizen.

However, Ruskin's very insistence on the importance on cultural education makes a positive political statement. To borrow the term from the work of Pierre Bourdieu, the very act of accumulating 'cultural capital' has as much value as established social markers, such as wealth, rank and personal network. (Bourdieu, 2002) Indeed, Ruskin gives a surprising answer about what is expected of a cultured man. He believes this lies in the ability to carry out a 'word by word' reading of a text: not accounting for the breadth of reading, but purely the accuracy and attention lavished on it. It is an author-centric approach to reading, putting the quest for finding the author's meaning above one's own interpretation. On a practical note, he recommends keeping a modest personal library, excellently curated and having 'good books.' Ruskin is an advocate of the Canon, categorizing books into good and bad, and for life or disposable. Adhering to Ruskin's Canon is preferable for a man but vital for the woman, who is recommended to seek out these good books and read them as 'treatises on moral anatomy and chemistry.' (p.83) Ruskin's exacting, but somehow limp take on 'good reading' demands a contrast with how education is today. Digital culture in its strictest sense stresses opportunity and the potential for discovery, due in part to the technological possibilities spawned by the migration of shared knowledge to digital space. The rise of Open Access in the academic field and user-regulated information sites like Wikipedia and Reddit indicates an attitude to exposure and learning that could not be further from Ruskin's modest shelf. (Corrigan and Ng-A-Fook, 2012) Furthermore, although gendered and sexual identities have the unfortunate potential to draw discrimination and divisive rhetoric in the digital space, they in no way control the type of information a person has access to.

The tension between the demanding voice of the individual, and the demands of their community creates a strong link between Ruskin's time and the post-Millennial era. His opening point in 'Of King's Treasure' is the overarching driving factor of his society; 'the

gratification of our thirst for applause.’ (p.28) He cites Milton’s elegy ‘Lycidas,’ and the poet’s despair at the ‘blind mouths’ given clerical office; those pursuing power above the genuine call to the order. At length, Ruskin alerts his audience to the follies of seeking influence; those who ‘creep,’ ‘intrude’ and ‘climb’ (p.40) in order merely to ‘be acknowledged by others to be respectable or honourable’ and ‘being seen to have accomplished.’ (p.28) Following this thread, Ruskin turns his thoughts to the self-censoring nature of the book, as being an object ‘not to multiply the voice merely, but to perpetuate it.’ (32) He imagines an author giving his reasons for writing to his readers:

This is the best of me; for the rest, I ate, and drank, and slept, loved and hated, like another; my life was as vapour, and is not; but I saw and knew: this, if anything of mine, is worth your memory. (p.28)

Both this motivation to be seen to be, rather than to be for its own sake, and having the means to self-publicise and censor where fit, embodies the darker side of digitality. At the historical crest of obsessive Victorian repression, Ruskin speaks out against a persistent phenomenon of manipulating the perception of others for social mobility. Compare this to (as we will see) the self-repressive behaviours of Dave Eggers’ protagonist in *The Circle*, who comes to live her life transparently for a pathological need for advancement and approval, and according to Eggers, the reasons for sharing discoveries and passions may not have progressed in nobility.

In his creative endeavours, Ruskin’s passion for sustainable productivity in the arts and things built to endure has more recently drawn attention from those working today in the development field. (Chitty) (Fong, 1999) The Ruskin who created the St Georges Guild, originally a utopian community of artisans, now an education trust, is very much present here. In ‘Of King’s Treasures,’ Ruskin idealizes the book as ‘not a talking thing, but a written thing, and written, not with a view of mere communication but of permanence.’ In an influential 1994 text *The Commodity Culture of Victorian England* Thomas Richards comments that the emergence of commodity culture ‘successfully integrated the

paraphernalia of production into the immediate space,' (p.30) marking the 'ends of representation.' (Richards, 1991) Ruskin predicts the onslaught of mass-production; and its focus on captivating space, rather than time and the inevitable historical gain in cultural significance. The evidence of the immediacy of commodities saturates the wirelessly connective space: consumers are often a seated click away from acquiring the commodities and as we saw with McCarthy, the information they wish. Eggers also has an interesting take on the movement of time and the state of permanence next to 'taste.' The state of 'permanence' recurs in three contexts. The founder Ty, alias Kalden revealingly glances at Mae during a conversation 'as if at that moment, she'd become three-dimensional and permanent' (p.220): two things that we know to be false of this mercurial and functionally underwritten character. Another usage describes staff moving full time to the campus: dorms becoming 'so popular and practical that many Circlers were living in them more or less permanently.' The other context is in the recurring trope of the enduring and incriminating nature of a person's online life: a person's behaviour is recorded 'permanently.' The child safety measures put in place evolve into total surveillance: 'in the interest of education and safety, everything they've done will be recorded, tracked, logged, analysed – it's permanent.' (p.481) We move from Ruskin's conception of the state of permanence and something aspirational, to Eggers' vision of permanence as a 'trap': a way of looking at another character to preserve a moment: a shift in status from separate professional and private life to a continuative state in between, and a surveilling ability beyond what has gone before.

What makes *Sesame and Lilies* a useful text to guide thinking about the history of taste is how it sheds light on the responsibility of taste as a political concept as well as merely being what a person likes. In the wake of Ruskin and influenced by Marx, global scholars of class structure and mobility such as Thorstein Veblen, Georg Simmel and in the later twentieth century, Bourdieu, built their lives' works around the social repercussions of taste assimilation and commodity aspiration and desire. Now as much as ever, Ruskin's

problematic hopes for cultural consumption are relevant at a transitional time in which the public sphere is watching as much as it is being watched. Accumulating 'good taste' online has changed our material relationship to the things that we surround ourselves with. Online criticism had responded to the ability of the algorithm to discern cultural preferences by likewise ascribing numerical and alphabetic values to denote cultural value; aggregator sites such as Metacritic and Rotten Tomatoes liquidize pieces by professional and non-professional critics into, in the latter case, 'Fresh' and 'Rotten,' overall giving films percentages. There is a novel tension in personal taste expressed in the digital age between the philosophical, soft approach of 'taste' aesthetics and reception, and the hard metrics of adaptive technologies. Tom Vanderbilt's work on digital taste examines the relationship between personal choice and algorithms across platforms whose essential purpose is to monetize attention. The Netflix model cited by Vanderbilt has according to him perfected the idea of capitalizing on personal taste and guiding consumers into investing more time in their product. By using probability generated by historical audience choices, the users' next moves are curated and designed. Vanderbilt observes the fine line trod by companies tracking these movements that is salvaged by reflexivity: 'if there is a violation of privacy here, it's most salient feature is that you cannot hide from your own taste.' (Vanderbilt, 2016)

### **Taste and Subjectivity**

'Digital taste' in the post-Internet era has therefore come to have distinctive qualities. It is quantifiable thanks to complex algorithms, and following on from that, transmittable due to the ever-ticking blogosphere and social networks, and the networked sharing of personal taste is democratic, contributing to the overarching goal of the digital project. From public figures to companies, even to the most abstract of ideals, everything that can capture an individual's personal preference can be tracked and followed and measured in

popularity and 'viral' potential. Reviewing *The Circle*, Alex Clark recalled the experience of reading it on his Kindle, and receiving an automated email (of the kind sent by Mae in her first steps for the company) from Amazon, checking to see if he was enjoying the book. He recalls:

I shouldn't have felt disconcerted...but I was already defaulting to Eggers's world-view, in which my every preference, no matter how lightly held or provisional, has a value and the social membrane (between me and somebody selling me something or becoming my friend or arresting me or asking me to vote for them) has become irreversibly porous. (Clark, 2014)

The success of shaping this paranoid worldview in the viewers is partially due to a protagonist who is 'ideal' in embodying the company ethos, and as an uncanny surrogate for the reader's own experience. Recent graduate Mae's impressionability enables her, paradoxically to become a global tastemaker. Indeed, this mass-appeal potential is at once signalled: her full name is Maebelline, not so subtly chiming in with the melding of big business and the cultivation of personal aesthetics that the beauty industry is. She comes to generate unfathomable revenue from her recommendations, and becomes a hot commodity for the company's shadowy trio of CEOs and thousands-strong workforce. What is striking about Mae is the flatness of her characterisation, as opposed to the state of 'threedimensionality' Ty sees her in, signifying her status, in a novel populated by archetypes, as an everyperson. What we know about her, her family set up, her education, a fondness for kayaking – is questionnaire knowledge. Her responses to events, at first what would be expected of a person of her 'type,' and then increasingly expected as a mascot for the company, seem automated, underscoring why she is an ideal vehicle for the ideas of the novel. The dissolution of her private life is expected because it is so negligible in the first place; her willingness to 'go transparent' is no jolt for the reader as it marks little disruption to her first characterisation.

Her persona, so malleable to begin with, conflates with the image of 'transparency' (which we will come back to.) It is worth noting the tonal similarities between Mae as a central subjectivity, with McCarthy's cipher protagonists, and the role of the automaton.

Even in Mae's first tour of the company headquarters, she is confronted with value judgements centred around taste. One of the CEOs is a great 'collector' and 'connoisseur' with 'incredible taste,' but in the same breath, a joke is made about his indiscrimination: his aesthetic is 'the past,' even the 'bad art' of the past. (p.26) The meaninglessness of the conversation evaluating Bailey's taste sets a standard for 'taste' throughout the novel.

Mae's first exposure to her taste making role, as she makes the transition into transparency is further evidence of this:

“So let's say you recommend a certain keychain, and, 1,000 people take your recommendation; then those 1,000 keychains, priced at \$4 each, bring your retail raw to \$4,000. It's just the gross retail price of the commerce you've stoked. Fun, right?”  
Mae nodded. She loved the notion of actually being able to track the effect of her taste and endorsement. (p.252)

The innocuousness of the chosen object, and then the throwaway comments woven in with the hard rhetoric of chasing profit – 'fun, right?' – throws immediate suspicion on the value of Mae's endorsement – which is righteous suspicion when the same principle is applied to political endorsement towards the denouement of the novel. Introduced to the idea of mapping of customer preferences, and she perceives the company as a 'Valhalla' for marketing. She is at once repulsed and excited by the prospect that 'the actual buying habits of actual people were now eminently mappable and measureable, and the marketing to those actual people could be done with surgical precision.' (p.22) Mae's induction into influencing capitalises on the queasy sense of transgression that exists in building knowledge of preference in the digital age. *The Circle* knowingly ties this to 'transparency,' or the real-time voluntary broadcasting of everyday life. It starts as a gimmicky ploy for votes for politicians, and as the parameters of acceptable influence in



the Circle migrate, embracing transparency becomes an unspoken need for those wishing to still be in office.

Eggers understands the repulsion and intrigue of how a profile of preference emerges for individuals online. During elections, much is made in the media linking electability with the 'tastes' of candidates: it is no coincidence that as the polls open, we are more likely to hear about the music politicians choose to listen to and even what they may like to eat, with journalists hysterically speculating on how this may affect a contender's appeal.

(Mason, 2010) (Strick and Cornwell, 2015) In the cultural field, Salman Rushdie unexpectedly made news when his ratings of various novels on the book-centric social networking site GoodReads became public. Responding to the public release of unfavourable reviews of novels by Kingsley Amis and Harper Lee among others, he cited a lack of knowledge of social media: 'I thought these rankings were a private thing designed to tell the site what sort of book to recommend to me, or not recommend.' Additionally, he expressed bemusement at the reaction his blunder has caused, that he did not have to 'explain or justify'. (Sandhu, 2015) Something as subjective and changeable as a person's 'favourite things' translate to the political and the newsworthy, marking a change in the way we think about taste. This refiguring of personal taste conflates with the steady decline of the 'professional critic,' or public arbiter of taste that a figure like Ruskin exemplifies. I have discussed Andrew Keen's vision of the amateur coming to replace the expert, based on his perception of the spread of online knowledge and recommendation. Ronan MacDonald takes a more far-sighted and historicized view of the waning of the professional critic, that evaluates the rise of cultural relativism. MacDonald pinpoints a variation in the philosophical underpinnings of judging aesthetic value, which is the place of democratic thought, and a corresponding expectation of catering to the individual. He sees:

...two conflicting impulses: on the one hand, a yearning for stable foundations against which to evaluate...on the other, a need to

accommodate the values of the sense that art is often changed and diversified and needed to be judged against new ones or to defend the new against the old. (MacDonald, 2007, p.42-3)

Eggers appears to understand very well this movement that perversely celebrates the voice of the individual, and the corresponding ‘particularity’ of tastes in response, and a willingness to defer to aggregates and algorithms rather than an authoritative voice of criticism. At the beginning of the novel, *The Circle* appears to be a manifestation of the kind of business model imagined by Jenkins’s convergence model, in which consumers and business work harmoniously to create ‘micromarkets’ in response to the virtual requirements of users, creating opportunities for small businesses. (Jenkins, 2008) Ben Hammersley has also advocated the positive benefits to artisans and small businesses on using digital platforms such as Etsy as ‘business support network(s) that encourages sellers to focus on business as well as craft skills and to consider forming crafting co-operatives when demand outstrips supply,’ (Hammersley, 2012, p.317-8) which creates the impression of a mutually beneficial symbiosis of passion projects and profit, to satisfy all. Eggers’ writing and style in its breeziness addresses both the fleeting nature of taste and its deeper political and social roots. *The Circle* appreciates and foregrounds the unprecedented level of both visibility and specificity in how we articulate taste through our technology, and this reminds us of the shifts in the global hierarchy. Serena Kutchinsky, herself an expert voice on digitality summarizes the direction of technology and taste as a:

...chance to improve audience engagement, offer better customer service and generate innovative ideas... (which) can only truly alter taste once it has impacted on how culture is produced and consumed – and once we all become comfortable with the new realities and working practices it creates for us. (Kutchinsky, 2014)

Kutchinsky understands well what Eggers’ frames as something to be feared – that we are not only seeing changes in media, but it follows that the models of criticism needed to make sense of them must mutate in response. The cycle of influence and impact is well

dissected in the practices of *The Circle*, but has a less positive view of the realities that subsequently occur.

### **Silicon Valley and Satire**

The novel is set in the Bay Area outside San Francisco, a location synonymous with Silicon Valley culture, being the desired address for start-ups and market leaders alike. In 1995, the essay *The Californian Ideology* co-authored by Richard Barbrook and Andy Cameron, a pioneering critique of online neoliberalism, suggested that the Web 2.0 'promiscuously combines the free-wheeling spirit of the hippies and the entrepreneurial zeal of the yuppies.' (Barbrook and Cameron, 1995) Eggers is a long-term resident of the Bay area, and has noted in interviews that this proximity to the culture has fed into his writing, although during the publicity run of the novel, he demurred on claims that he had greater insight than any outsider to the campus culture. (McSweeney, 2014) The two faces of Silicon Valley have become globally recognisable thanks to films and TV series such as *The Social Network* and *Silicon Valley* and the extraordinarily well-documented narratives of its main players. In the USA, at least, CEOs and co-founders of these companies have begun to garner as much press attention as politicians and celebrities, with Silicon Valley catfights between executives becoming public interest news. (Davies Boren, 2015) *The Circle* comments on this growing parity between the producers of the latest apps, websites and initiatives and the tastemakers and the lawmakers who influence our own behaviour to such a degree. Evgeny Morozov wryly claimed of Silicon Valley that its 'technophilic gurus and futurists have embarked on a quest to develop the ultimate patch to the nasty bugs of humanity', and this accurately reflects the novel's narrative trajectory. (Morozov, 2013) *The Circle's* devouring ambition seems initially to be counterbalanced by the efforts to present a benign and community-driven public image. *The Circle* deftly collapses the personal into the political to reflect the failures and intricacies of digital democracy. First

wave digital utopians including the likes of Kelly and Jenkins with extensive involvement in Silicon Valley hold the belief that the Internet facilitates a meritocratic approach to evaluation. (Kelly, 2011) In the novel, co-founder Eamon Bailey embodies this stance, noticed by Ty who points out to Mae: '(Bailey) truly believes that openness, that complete and uninterrupted access among all humans will help the world. That this is what the world's been waiting for, the moment is connected.' (p.489) Ty himself disparages the view as 'Infocommunism,' drawing attention to clashing and discordant ideologies in the novel. The Libertarian tendencies inherent in techno-utopianism have been in some cases amplified to an extreme, anti-regulation position, rejecting the authority of governing bodies in matters such as company spending, dispersion of investors and where relevant, censorship. By playing with the political spectrum, Eggers could be passing a comment on the enveloping possibilities of start-up culture to subsume the interests of political party. The lack of political consistency and a clear lack of regard for conventional bipartisanship in the novel is a statement of power. Keen has written at length of his own experiences as the founder of a start-up during the gestation of Web 2.0, and his first hopes and ambitions stretching beyond his own company. He notes of the time: 'I had never realised democracy has so many possibilities, so much revolutionary potential. Media, information, knowledge, content, audiences, author – all were going to be democratised.' (p.41) He, like many who shared an idealistic view of the levelling power of the web came to see the endeavour as increasingly compromised: 'undermining truth, souring civic discourse and belittling ability, experience and talent.' (Keen, 2007, p.15) The compromises insidiously take over Mae's narrative. She gives little thought to the uncooperative politicians who are promptly arrested on bogus charges, or to the dissenting voices of rational people in her life. A pointed extract sees Bailey's defence of Assange's actions – a still impossibly tangled and ambivalent turning point in twenty-first-century history – evaluated against the criteria of whether Mae 'remembered if any soldiers ever actually were harmed by these documents being released?' (p.287)

The looseness of 'harm,' the lack of preciseness in delineating degrees of effect to the leaks gives the overall effect of reducing what was an international security breach into a harmless exercise in information sharing. Whether or not the novel works as a satire depends how believable *The Circle* is as a corporate monolith, and also as a force that has the political and social heft to enforce a soft totalitarian system on international governments, and therefore citizens around the world. Much of this success is due to the novel's presentation of the architecture and location of the headquarters. The narrative rarely strays outside the walls of the compound, as Mae's life becomes further embroiled with her workplace. *The Circle* opens with a panoramic view of the campus, of which 'the smallest detail had been carefully considered, shaped by the most eloquent hands.' (p.1) In many ways, Mae's first account of what she sees entirely foreshadows what the company becomes. It is not just a shiny newly-built 'heaven' for enterprise and ingenuity; it is built on 'land that had once been a shipyard, then a drive-in movie theatre, then a flea market, then blight, there were now soft green hills and a Calatrava fountain.' (p.1) Like the shifting landscapes of Manhattan and Brooklyn in *Goon Squad*, Eggers makes a deliberate show of the gentrifying strides of the company; it has not only overpowered an ancient way of trading, and an all but dead form of mass-culture, but total ruin and infection of both landscape and urbanity. And it has done so in the very best of taste, with the help of the finest artisans, and a renowned neo-futurist architect, responsible for some of the most recognisable landmarks of the twentieth and twenty first centuries. The casual name dropping at once situates *The Circle* not only as a considerable economic force, but a company with cultural ambitions with an eye on its place in history. Margaret Atwood observed in her review of the book that 'the Circle is a combination of physical container, financial system, spiritual state, and dramatis personae, intended to represent America, or at least a powerful segment of it.' (Atwood, 2013) Atwood underscores the complexities of the physical properties of the campus, that perhaps overshadows in the force of its character, the protagonists. The company headquarters is a macrocosm built to cater

entirely to employee convenience. The effect is overwhelming: from the ever-multiplying employee dormitories to the decadent communal spaces, all are designed to dissolve the divide between personal and professional life. Mae is quickly seduced, surmising that the headquarters makes the rest of the country look 'like some chaotic mess in the developing world. Outside the walls of the Circle, all was noise and struggle, failure and filth. But here, all had been perfected.' (p.31) Mae's first tour of the company with her college friend Annie paints a vivid picture of a space that reflects the unease of digital democracy. A painting introduces the reader to the CEO trio known throughout the company as the 'Three Wise Men,' whose convergence of approaches and styles seeps into the office aesthetics and culture. Ty has a shadowy public persona, but is a constant presence in the novel as his alter-ego Kalden, as he comes to realize that his technology created for largely benign, modest purposes has been hijacked for a wider political intention. Tom Stenton is the capitalist 'shark' painted 'grinning like a wolf that ate Little Red Riding Hood's grandmother' (p.22), and an 'anachronism...the flashy CEO...(creating) conflicting feelings among many of the utopian young Circlers.' (p.24) Rounding out the trio, the idealist father figure to those afraid of Stenton, Eamon Bailey serves as the charismatic public face and internal compere who is vital to the 'soft' impact of increasingly horrifying practices. During a tour of the latter's office, the worldlier, and comparatively veteran Annie dismissively explains: 'He loves this ancient shit. Mahogany, brass, stained glass. That's his aesthetic. He gets over-ruled in the rest of the building.' (p.19) Continuing the smorgasbord of appropriative design, the contemporary office blocks have names of cultural periods such as 'Old West' and 'Renaissance.' It is fitting that its architecture helps dialogue in a way that recalls Classical works: as we see in the vast spectacle of the company town-hall meetings, the setup evokes the drama and rhetoric of amphitheatres, or even the colosseum as the novel becomes progressively cut-throat in its vision. The unveiling of the first transparent congressional representative takes place in the 'Great Room of Enlightenment' – and what follows is a tongue-in-cheek 'enlightening':

She bowed...As she was nearing the curtains at stage left, she stopped. 'There's no reason for me to go that way – too dark. I'm going this way,' she said, and the lights in the auditorium came on as she stepped down to the floor, into the bright light, the room's thousand faces suddenly visible and cheering. (p.211)

From the choreographed movements from the game politician to the room's furnishings, which are all sweeping curtains and levels of staging lit with the precision of a production, the passage is pure theatre. Like any great edifice, the Circle's headquarters both stands for the company as it is, and functions as a statement of intent and ambition.

### **Transparency and the Virtual**

The domestic digital technologies sold by The Circle are recognisably and cosily familiar as the sort of technologies readily available now. The wearable trackers peddled by Circlers for medical and child safety precautions have the modestly posthuman features that the early twenty first century is comfortable with: and the SeeChange cameras are marketed as a positively angelic force for sharing information and knowledge to further human understanding. The devices are sold on the promise of their capacity to enhance day-to-day life to consumers in thrall to the dream of a time-efficient, streamlined life: at the expense of pausing to criticise the ramifications of this. Postman's response in the early nineties to the increasing technophilic society are useful to understanding The Circle's ethos, and why it easily translates from workplace to cult. In his book *Technopoly*, he explores the interdependence of technology and culture:

Technopoly is a state of culture. It is also a state of mind. It consists in the deification of technology, which means that the culture seeks its authorization in technology, finds its satisfactions in technology, and takes its orders from technology. (Postman, 1993, p.91)

There are Kittlerian and Freudian echoes in Postman's argument, in the shaping of a collective consciousness, that illuminate parts of Mae's chilling journey from outsider to eager follower. Her unformed and vulnerable mind, and lack of confidence and self-

knowledge make her an ideal vessel. She constantly seeks approval and 'authorization' from her apparatus: from the moment she is plugged into the system, she never seriously questions the actions of the company, for fear of exclusion, and going back to the 'chaos' of her earlier life. These fears of the messiness of a life unordered by technology, as we have explored, align her with McCarthy's automatons. Her initiation underscores the 'humanity' of the company, that it is a 'human place,' the workers are 'not automatons,' and that she 'should always be ready to inject humanity into the process.' Morozov's variation on the technical 'Superhuman' is embodied by the example of a Microsoft engineer, Gordon Bell, a self-fashioned extreme lifelogging advocate, who has worn a so-called 'SenseCam,' not unlike the apparatus in *The Circle* that enables transparency, since the late nineties, which has documented his life through photographs. In Morozov's words, this 'one-man museum' project 'rejects the very selectionist spirit of curatorial work...' and furthermore fuels a sense of obligation that 'what can be logged must be logged. And if it can't be logged, then it must be ethically and aesthetically deficient.' (Morozov, 2014, p.296) What is interesting about Eggers's protagonist is that she becomes a life logger because of a mistake: twisted by her employer into evidence she is 'ethically deficient.' A misunderstanding over a 'stolen' canoe gets Mae into trouble – not for stealing, but for failing to share the experience with followers, which she is coerced into describing as 'simple selfishness,' as the 'nature state of information' is to be 'free.' (p.304) She is deftly manipulated into becoming the figurehead of the lifelogging, or transparent movement because of her 'authority-seeking' behaviour. The novel's bisected structure dramatizes her conversion. Book I of the novel focalizes her financial and personal insecurities, typical of a recent graduate who does not question, at least with any depth, the motives of the people around her. She easily shakes off the non-converts, her family and former friend Mercer in favour of her new employer, despite their care and clear concern. In the passage building towards Book II, in which she is the poster girl of transparent digital living, she coins the aphorism that poisons the following narrative; 'Privacy is theft.' (p.305)



Transparency becomes a catch-all term for the Circle 'cult's' expansionist interest; and proves to be the principle that truly draws Mae in. The transparency that the Circler's higher echelons initially put forward alludes to its most idealistic iteration; the kind of 'achievable utopia' advocated by Lévy in which the romanticized form of collectivism and collective intelligence is fully realized in society. (Lévy, 1999) The language used by the Circlers emphasises this link: transparency contributes to 'collective knowledge.' The use of transparency in *The Circle* suggests ongoing anxieties about how far soft surveillance can be taken. What the circlers imagine about transparency's conclusion, the closing of the circle, is deliberately vague. As Eamon Bailey claims in a speech, the 'new era of transparency dovetails with some other ideas I have about democracy . . . making it complete.' (p.386) 'Some other ideas' are glossed over in typical Circler fashion, an immediate red flag marking dubious and half-formed designs. The idea of completeness hovers spectrally over the text, as its true meaning is oblique. The language casings of transparency aspire, as John Masterson points out, to the state of water: 'clarity,' 'clear,' 'complete,' 'simple.' There is a deliberateness in these neutral descriptors: they could be found in a mineral water advert. Masterson couples the notion of transparency with the recurring motif of water, as an image denoting the 'soft' totalitarianism that becomes the company's guiding principle. Deferring to the image of water, as he argues, foregrounds pressing bio political and eco concerns of late capitalism that the Circle appears desperate, despite its solutionist proclamations, to suppress. Reinforcing the force of transparency with the force of water focuses a connection with the dissolution of boundaries. As Masterson says Eggers' 'enduring fascination with processes of expansion and retraction, regulation and deregulation, at the level of both micro-body politics and the macro-body politic, for example, complements various critiques of the entangled processes of globalized security.' (Masterson, 2016a) Transparency becomes a meaningless, hypomnesic statement of the type criticised by Stiegler: and this connection is made more apt by the work force setting of the novel. Thinking along these lines, the labour politics of

this novel are deeply pessimistic about hive-mind mentality. The argument for transparency is the idea of the zeitgeist-capturing 'your best self,' which is 'cheerier, more positive, more polite, more generous, more inquisitive' (p.330) than the self that is out of the public eye. The soft or dematerialised power of transparency and its indefinability allows it to escape inquiry through the workforce. Circlers are encouraged to make full use of 'the global and unending advantages of open access,' and to be seen 'living that ideal.' Transparency's mercurial meaning to the Circlers shows that allowances will continue to be made for harmful behaviours. The unspoken statement by the conclusion, and during the symbolic closing of the Circle is that the parameters of the 'best self' will move according to the whims of the Circle.

Political scientist Kevin Ryan cited *The Circle* as a correct portrayal of the power of 'transparency' in the aftermath of WikiLeaks, claiming that it has become as 'metonym for democracy;' and that:

...to argue for greater transparency is to argue on behalf of democracy in the name of accountability... saying that no person, corporation, or government should be above the law. However, new forms of control are emerging that make this democratic ideal look archaically quaint. (Ryan, 2015)

Ryan sees *The Circle*'s movement into being 'above the law' as a fictional parallel to the lobbying and manoeuvring activities of real Silicon Valley heavyweights. Bearing this in mind, it is unsurprising that Mae is willing to accept transparency so quickly, as her behaviour is that of a cult follower, believing in the untouchable, singular ethics, and vision of her tribe. The *Wall Street Journal*'s review commented on the ruthless work environment's effect on her, noting: "Mae's behavior changes for reasons that will feel very familiar. These services - and the promise of a data-driven world - do provide real value. But her fictional culture and our real one leave little room for objection. Opting out is seen as a personal and professional death." (Berman, 2013)

One cause of the collapse between her public and private lives is the tightly wound sense of duration. Eggers ensures that even in the unmeasured proleptic leaps in the narrative, the reader is aware of the passage of time; as participation and time-devoted influences the overall rankings. Mae's zing feed becomes a visualisation of granular time, and chronicles what Douglas Rushroff calls 'narrative collapse.' He argues that digital consumers require self-reflexive and self-referencing art forms to accommodate a collectively decreasing attention span, which is an intriguing descriptor for the circuit of allusions and information between Mae and her followers. (Rushroff, 2013) Thinking about this lends further depth to the novel, not just as a novel about taste, but as an artefact about digital taste in its execution: the attempt to capture the immediacy of social networks and rapid-fire cross pollination of voices is specifically early twenty first century in its language and attitudes. *The Circle* features often torturously long passages that spares the reader nothing in recounting the 'deluge' Mae is subjected to from various screens to highlight this. Particularly in Book II, her Smart wristband displays a constant barrage of 'zings' and messages from ultra-connected strangers seeing the world from her eyes; influencing her behaviours, interactions and choices. The more she allows herself to be watched, the more sterile and predictable her world becomes. Her speech changes from the slightly informal vernacular of the recent graduate to the corporate spokesperson. Compare the change in Mae to the concerns raised by Turkle's cultural breakdowns of rituals organizing public and private life:

...demarcations blur as technology accompanies us everywhere, all the time. We are too quick to celebrate the continual presences of a technology that knows no respect for traditional and helpful lines in the sand. (Turkle, 2011, p.162)

Mae's obsessive updates and stream of feedback and opinion, for which she neglects her family life, hobbies and any semblance of family life sets a higher bar for her colleagues to follow. As Dennis Berman notes of the novel, it forces the reader to reflect on how remarkable it is that 'it has become taboo not to share one's inner life online': for The

Circle it is not just an affront to their company values, but in fact cutting off its very life-blood. (Berman, 2013) What is implicit in the novel is that the Circle's greatest strength is to normalize these behaviours to create a living, thousand-strong production line. David Staley agrees that *The Circle* 'forces us to consider the physical limits of our brain's capacity to meaningfully interact with a growing electronic external symbolic storage system.' Mae frequently attends to multiple digital feeds, although we are not shown how she does this, only being told that she 'makes her way through.' (p.77) Mae's physical abilities transcend what an individual, however tech-savvy, could manage in twenty-four hours.

What emerges from this is, like McCarthy's trash mountain and reveries of streaming data, is a sense of the sheer enormity of the digital project. The physical repositories of memory and communication are centralised and digitalised 'for ease,' but becomes uncontrollable. The impression that Eggers gives of the headquarters is of vastness; the campus is physically enormous, but more than that, it is conceptually excessive and uncontainable. There are rooms and wings for every company whim, and no style or aesthetic that cannot be replicated, and beyond that, a complex hive system of staff with the vaguest of job titles (if one is set up), from former Olympians to biochemists. The concentric layers of diversion and closed-off circularity prevent the reader from solving the true mystery of the novel. The Circle offers a service to people to replicate themselves online, and make buying easier; and takes advantage of this by running a signposting economy. Its survival depends on gesturing past itself to commodities. It is a strange, vampiric model; and Mae finds it easy to tie up her identity in the revenues that her gaze can generate because of the separation between virtual and material.

Eggers nods to this in Mae's endeavours to involve her artisan ex-boyfriend in her work. She directs attention to his home-business, provoking his fury, as he counters:

If stores know what their customers want, then they don't overproduce, don't overship, don't have to throw stuff away when

it's not bought. I mean, like everything else you guys are pushing, it sounds perfect, sounds progressive, but it carries with it more control, more central tracking of everything we do. (p.261)

Mercer's voice of reason states an ecocritical concern over the fractious relationship between online taste and material usage, and reassures that there is at least one voice of dissent recognizing the company's authoritarian agenda. Ultimately, the novel is 'all about corporate control, not only of the market, but over our daily lives, the workplace environment and political process.' (Harris, 2015) As Mercer points out, the company is a master of manipulation, persuading its members in particular of their freedom: '...there are no oppressors. No one's forcing you to do this. You willingly tie yourself to these leashes.' The Circle brilliantly gives the illusion of self-determination by bombarding their participants with choice. This is echoed by Mae's greatest contribution to the company: 'Demoxie': 'the only chance at direct democracy the world had ever known,' needing eligible voters to have a Circle profile to take part in state and national elections. The concept of an enforced democracy weakens the very concept, as a non-vote can carry as much of a political message as a vote.

### **Consumerism and Censorship**

The post-Keynesian economist John Kenneth Galbraith explored the impact of consumer choice on the political structures of economy, critiquing the impact of financial monopolies. Galbraith's economic model sees choice not just as individual acts performed daily by consumers, but as 'an *ideology*, a belief about how decisions are made, a belief increasingly at odds with actuality'. Galbraith's work shares with Eggers a conclusion that the 'fetishization of choice is highly convenient to those in power.' (Gabriel and Lang, 2006, p.40) What Eggers seeks to expose particularly about a digital society is this unquestioning fetishization of choice, and the attention those choices draw. The 'ideology' of choice is deployed as a camouflage for a more devious agenda, and deployed as a weapon against

even its most avid supporters. Atwood dryly observes the ever-judging, panoptic quality of Mae's workplace: 'Every choice is tracked and evaluated, every "aesthetic" ruthlessly judged...young Circlers subscribe to this dogma: nothing gets you the brushoff more quickly than a pair of uncool jeans.' (Atwood, 2013) Mae's feelings about buying a brand of conditioner is not just a snap decision that will affect the look of her hair for a few weeks, but a statement of intention and choice forever immortalized as 'contributing to the data pool'. The draw of the expanse of choice is irresistible to those drawn to the company. Mae likens what is on offer to a 'well-curated organic grocery store,' the choices 'vetted already' (p.105) to end the possibility of making a 'bad choice.'

This subtle system of censorship underlines a central problem of digital culture and the concept of democratic access, and engages the text with the debate on the 'echo chamber' effect of social media, which suggests that rather than allowing for disparate voices, contemporary online media adapts to the profile of the user, and shows content they are likely to agree with. It is true that web users have a feast of information at their fingertips; they can plunge into everything cyberspace offers if they choose, however sinister, and deliberately seek out material that can challenge their own beliefs and affiliations. One study of 2005 traced links between social media and US election to supports this proposition, pointing out that the growing interactivity made possible by internet users during polling periods subsequently increased the voters' likelihood of encountering politically challenging material. (Howard, 2005) However, statistics have shown that users are happier to naturally limit degrees of their exposure to material straying outside their normal fare. Keen fearfully sees in the US potential for 'a nation so digitally fragmented that it's no longer capable of informed debate. Instead, we use the web to confirm our own partisan views and link to others with the same ideologies.' (Keen, 2007, p.55) Another more recent study tries to explain the non-correlation seen in China between blogging and political dissent; that the opportunity to set out dissenting views is not necessarily enough to create challenging dialogue. (Leibold, 2011) Another point to consider is the worldwide

rise of what sociologist Guy Standing terms 'The Precariat'; a new social class created in and by the digital era. Standing points out that many internet users fall into this social category, which he broadly reports as '...far from being homogenous...all share a sense that their labour is instrumental (to live), opportunistic (taking what comes) and precarious (insecure).' They are additionally the group most vulnerable to digital culture's darker side; surveillance technologies:

Website privacy controls have not worked well. Electronic systems have eroded privacy and given the state enormously powerful tools with which to construct a Panopticon system. Those in the precariat are most vulnerable because they indulge in activities that are open to monitoring and judgement calls and because they are more exposed to the consequences. (Standing, 2011, p.232-3)

With the tantalising prospect of choices handed to her, it is worth asking why is Mae unable to make value judgements within The Circle, aside from a lack of confidence. For a company that claims to encourage curationism, its prize Circler is curiously undiscerning in her endorsements; favouring quantity over quality. She is always checked up on and evaluated on her ability to absorb the aphorisms of the company, which constantly expects 'new levels of reciprocation' (p.252) among staff. Philosopher Donald Bruckner, a specialist in value theory, has identified various forms of adaptive preference that hinge on feasibility and utility, and concluded that 'Adaptive preferences carry a presumption of normativity.' (Bruckner, 2009) With the constant white noise from her colleagues face-to-face, on screens and in company presentations, Mae falls in line with the behaviours, outlooks, and tastes, as her experience is narrowed to within its confines.

Mae's conformity, her lack of 'edge' and the predictability of her routine becomes her greatest asset, without her even realising. She marks the kind of disruption in 'libidinal economy' that Stigler identifies as a toxic consequence of adopting information without further contemplation. (Stiegler, 2011) This is how marketing and advertising works: it 'best persuades its audience at low levels of cognitive involvement...repetition of the message influences the consumer to respond to the marketing stimulus and to act in

accordance with the advertiser's goals.' (Menell, 2013) She is powerful because she is complicit. As Mae climbs ever higher in the ranks, she embodies what Mercer calls the 'weird paradox' of being 'at the centre of things' yet having no perspective of her community. Omar Lizardo explains the difference between social and cultural capital, two hallmarks of power within a community:

Social capital allows the individual to accrue benefits by facilitating the formation of durable networks of acquaintance, obligation, and recognition...Cultural capital on the other hand, provides the person with the symbolic recognition afforded by mastery of specific dispositions toward collectively valued cultural goods. (Lizardo, 2006)

Measured against this criterion, Mae has neither. The expectations of her audience move her. This highly pressurized atmosphere points to a culture that advances an ideology of choice, which is a façade to allow for a campaign of totalitarianism and unthinking collectivism. The real trajectory of *The Circle* is steering the herd; firstly, towards homeware and goods, then towards who to entrust with the bearing of their civil liberties. The control of information is what is at stake; and Galbraith's central critique of consumer culture rings true of the barren business model of *The Circle*: 'One cannot defend production as satisfying wants if that production creates the wants.' (Galbraith, 1958, p.124)

*The Circle*'s closest comparison in the dystopian canon would be Huxley's *Brave New World* in its ideology and concerns. There are striking structural and political similarities. Both most notably explore the reality of a technocracy; stratifying individuals and networks according to their affiliations with and knowledge of technology. Huxley's assorted writings, emerging from the fragments of theories popularized in the desperate wake of the Great War alluded to an early interest in so-called 'reform eugenics.' Exploring the authors' political interests and affiliations, Joanne Woiak notes: 'Huxley further serves as an example of how intellectuals from all points on the political spectrum—not just conservatives or fascists—were drawn to eugenics as a progressive, technocratic means of



improving the health and fitness of populations. ' (Woiak, 2007) *The Circle* presents an equally complex political proposition, of the value of the individual. The political lines waver throughout the novel, and reach the apex in the final confrontation between Mae and Ty, where TruYou's creator turns his back on his own creation: 'Under the guise of having every voice heard, you create mob rule, a filterless society where secrets are crimes.' (p.488)

The 'reforms' proposed by *The Circle* are a jarring step out of social networking, and conform to Morozov's problematic solutionism; put succinctly, 'for someone with a hammer, everything looks like a nail.' (Morozov, 2014, p.6) New technologies appear to solve problems, but in fact create or miscategorise them to create need, in the name of 'efficiency.' Just looking at Apple's App Store confirms this; an app that offers a real time 'bleep' over bad language, one to count toxins in food, another creates the favourable conditions for the ultimate nap by 'smart' alarms; all useless. The Circle churns out at points admittedly more noble fare; child-tracking, anti-burglary devices, environmental impact reducing schemes. But for Morozov, and other techno-sceptics, it treats quotidian human life overall as a problem to be solved by technology; encouraging trepidation in users of a life without them. This is not lost on a reviewer from *The Economist*, that in this crimeless utopia, 'prevention has overtaken cure and technology is cheap and plentiful' with a result 'scarier than the warnings' issued by any of the skeptical techno critics like Morozov. (Editorial, 2013c) The Circle maximizes the digital anxiety of being disconnected by the wider world, planning to become a social and political crutch for entire countries. At this point, it is useful to compare overall how the 'real' Web 2.0 stacks up to its fictional counterpart. *The Circle* presents a possible future for digital culture at the mercy of big business and big data, that promotes a cultural environment of homogenous thought. Paired with your social movements are clickable adverts especially tailored to the algorithms generated from tracking software programmed to drive more revenue to sites and their partners, and only the most tech-literate can dodge this through complex

manoeuvres. Initiatives have sprung up to give advice to even the smallest businesses to learn how to harness the power of social media to garner customers. A UK government run website (in partnership with Lloyds Bank) lists the benefits as follows: 'Develop brand loyalty. Provide better customer service. Increase sales/donations. Cost effective.'

(Editorial, 2013a) (Editorial, 2016) Among the mundane marketing buzzwords, the lingering sense of intention is precisely what motivates social networking: money. Eggers' obvious source of comparison, Google, as of 2015 controls 65% of Internet searches globally, a figure that rises to 90% in countries such as Spain and Italy. (Keen, 2015, p.57)

Like Circlers, Internet users are complicit in creating and sustaining these online monopolies by migrating and delegating everyday activities to online platforms. In a pivotal chapter of the novel, the most ruthless CEO Tom Stenton gives a speech on democracy, '...another area of public life where we want and expect transparency,' and speculates on the private actions of political leaders: '...doing something they shouldn't be doing. Something secretive, illegal, against the will and best interests of the republic.'

(p.207) The use of the word 'republic' gives an ambiguous frisson; is he referring to his country, or the digital republic that has just as much influence?

## **Conclusion**

The introduction to this thesis looks back at writers with the mental apparatus of the nineteenth century, who were conceiving of the evolution of human life hundreds or thousands of years into the future. They projected their own sense of the contemporary onto a future screen, outlining what might happen to humans with generations of adapting to assistive technologies behind them. They traced outlines of physical and epistemological landscapes to come. The writers I have chosen, except for Jennifer Egan for one jolting chapter, have reframed the past and the present, with their own apparatus of a globalized, digitally shrewd world, in which virtuality is a prosaic mode of being for millions, if not billions of people. What I have addressed in less depth is those imagining the future, most particularly pioneering work and developments within Science Fiction: a skill that requires a deep concern with the present, and an ability to be transcendently 'contemporary' in the way that Agamben imagines. (Agamben, 2010)

These novelists write the digital age with resistance, yet with an awareness of the possibilities for their medium, and of their own contemporaneity with a cataclysmic cultural moment. At the time of writing, one of the repercussions of shock election outcomes has been a re-evaluation of the role of the digital in shaping public decisions: intervening in the private to decide these consequences. The 2018 Cambridge Analytica scandal revealed, or for some, confirmed an uncomfortable truth about data usage, and the transgression of boundaries on the part of corporate and political forces. The digital era is mature enough for its long-term aims and potential to be speculated on, reflected in the intersubjectivity of the novels, but young enough to be bountiful in mystery. The title of the thesis is taken from Sherry Turkle's classifications of the web's possibilities; and I would like to unpack how I understand them. The 'raft' has connotations of solutionism: a vessel of buoyant safety in emergency. The 'transitional space' acknowledges the colossal

and deeply ambivalent changes of environment and intersubjectivity needed for the digital project. The 'moratorium' identifies the memorializing potential of web presence; collapsing the boundaries of time in consigning experiences to memory. The significance of the 'ladder' to me is the most enticing. It is with the image of the ladder that Wittgenstein's *Tractatus Logico-Philosophicus* concludes. The penultimate proposition 6.54 runs:

My propositions are elucidatory in this way: he who understands me finally recognizes them as senseless, when he has climbed out through them, on them, over them. (He must so to speak throw away the ladder, after he has climbed up on it.) He must transcend these propositions, and then he will see the world aright.  
(Wittgenstein, 1921/2001, p. 89)

Although the philosopher later discarded this image in a reflexive and verifying statement (Wittgenstein, 1998), the metaphor conveys well the struggle of technology; and the implicit need for ladder to be kicked away. Discarding the 'ladder' in fictional terms is exploring the formation of new ways to express these mutating sensibilities and subjectivities.

My hope is that my research will contribute to clarifying a moment of consternation in twenty-first-century culture, and contribute fresh ideas to the critical canon of some of the most well regarded and critically appraised novelists of the time. This thesis engages with debates on the nature of the increasingly fragile partition between public and private spheres. Digitality is central to the creation of twenty-first-century narrative: and there is a sense of urgency to pursuing the responsible use of it, as it impinges on the collective wellbeing of individuals and networks. The 'ante tempus' subject that emerges from Benedetta Liorsi's work on speculative fiction of the era shows this tendency. (Liorsi, 2017) The anticipatory register of an 'inherently disordered' body, over-spilling with latent pathogens and genetic coding of preordained failings, is produced by (paraphrasing Liorsi) the unlimited temporality of the 'ill' subject. Her interrogation of the subjectivities that arise from 'mass medicalisation' and the interruptions or solutions provided by biodata posit a new register of awareness that I believe my own selection of texts partakes

in. The fiction of this time is necessarily re-ordering temporal priorities according to the logic of data; but with a rooted ambivalence to its effects on the subject.

The recalibration of what counts for truth at the time of ‘fake news’ and the palpable results of digital interventions in policy making and election outcomes urges the reassessment of dystopian predictions. A constant thread throughout these works is a culture confronted with what is worth sacrificing in the pursuit of connectivity and technological progress. In an interview following the publication of *Zero K*, Don DeLillo was asked to respond to the ‘literary imagination’s’ role in reflecting on the rapport between human and planet. He gestured to the sterile cryogenic purgatory, the Convergence, in his novel as ‘not only the site of life-extension ambitions but also a refuge from environmental disasters of one kind or another’; imagining solutionism in the posthuman arena. He adds a further warning:

I can imagine the Convergence as a possible model for future inhabitation of the planet. But can it be more than a model? The complexity of competing interests, corporate and national, and the realities of war, terror and poverty and the refugee status of enormous numbers of people – these make it hard for me to see an enterprise such as the Convergence assuming more than an isolated role in society. (Boxall & DeLillo, 2018, p.164)

The implication is clear: ‘progress’ not only has a price; it is pricy. These imagined technologies to enhance and extend life are the ‘solution’ to the environmental ravages that their development has exacerbated – but only for a privileged few; like DeLillo’s fearful billionaires: further excluding marginalized subjects from technology. The environmental impact of this nebulous technology haunts digitality: the tension between the obsolete material waste discarded in favour of sleeker, more portable objects that have the same sooty footprint; as novels like *Satin Island* and *A Visit from the Goon Squad* point out. As Parikka makes clear, what we consider to be, as he puts it, ‘dead media’ or ‘e-waste’ ‘refus(es) to disappear from the planetary existence’ as ‘toxic waste residue’ (Parikka,

2015, p.48), and this insidious afterlife can only be disrupted by the deliberate acts of repurposing and salvaging,

The critical work on J.M. Coetzee and Ali Smith is, at the time of writing, lighter on the possibilities found in their work about digitality and technology, and my hope is that my work may invite further conversation on how these elements may continue to influence their work. I hope that my work adding to criticism of technology in Eggers, Egan and McCarthy in dialogue with some dynamic and visionary new criticism will go some way to further prove their reputations as documentarians of the era. These five writers share a concern with ensuring posterity, yet being attentive to the voices excluded in the process.

What I must conclude about writing the digital age is that its driving force is active posterity. When future readers look back at the novelistic output of the early twenty first century, it will have an elegiac register in exploring narrative traces. I have discussed the spectrum of ambivalence – from the receptive to the deeply cynical – that these novels are on regarding the digital project: but however hesitant the writer in embracing the digital, this transitory time offers opportunities for them to make connections between the seemingly frivolous and cyclical to the profoundly human project of legacy.

I acknowledge that the scope of my focus is necessarily narrow in terms of the novelistic voices used: the writers I have chosen document primarily privileged encounters with digitality, with a focus on British and American writing. I have stated, with what I hope is force, my reservations about the inclusivity of digital culture, and a widely-shared disappointment that virtual life appears to mirror and in some cases, amplify discrimination and exclusion. It is, however, my conviction that the following conclusions pinpoint a strategy advocated by contemporary minds to change this.

The introduction to the thesis explored the influence of three prominent figures in the making of the critical armoury to evaluate digitality: McLuhan, Kittler and Stiegler. My

chosen novelists emphasize McLuhan's thoughts on mass culture relying on connections and sequence: but digitality enriches narrative by encouraging, by opposition, more apophenic modes of examination. This is particularly strong in McCarthy and Smith, for whom exploratory thinking in opposition to technology offers creative freedom. What has been most fruitful in McLuhan's thinking for this thesis is the division between the cult of the individual, and the cult of collectivism. The narrative tension of attending to both creates a distinctive mode of mental labour, which in McLuhan's terminology results in another Age of Anxiety: generational tensions are a source of inspiration to many of these novels. Kittler's approach to the formation of the mental apparatus as a tool for legacy is close in spirit to the novels, and considering this process of formation elucidates what is distinctive about the digital voice. Auto archive needs a constant state of intervention in active narration: to exercise control over a story or a legacy is to be constantly aware of its crystallization. Fiction reflects the labour of leaving a legacy; and it is my belief that these chapters discuss areas in which these interventions are most powerful. This is where Stiegler's thoughts on the *pharmakon* come into play. This thesis speculates that in the future, the early twenty first century will be defined historically by a transitory, nascent digital state as a critical moment in deciding the nature of its progression. Stiegler perceives an opportunity for deintoxication at this moment, which means being attentive to information and narrative. Similarly, Hayles' strategies for dealing with the challenges posed by what seems to be an incompatibility between technics and systems of consciousness (subjectivity, and also non-anthropocentric systems such as cybernetics and artificial intelligence) position cognition at the centre. In her words:

...a 'cognitive assemblage emphasizes the flow of information through a system and the choices and decisions that create, modify and interpret the flow. While a cognitive assemblage may include material agents and forces...it is the cognizers within the assemblage that enlist these affordances and direct their powers to act in complex situations. (Hayles, 2018, p.116)

Fiction is a way to exorcise the concerns of this constant labour and moment of responsibility. Hayles suggests that 'effective modes of intervention seek for inflection points at which the systemic dynamics can be decisively transformed to send the cognitive assemblage in a different direction.' (2018, p.203) It from this position of intervention and recognition that I advocate my own strategies and predications for the future of fiction below. The register of these novels: questioning truth, knowledge, memory and memorialization processed by nebulized technologies suggests the need for a fictional response to the creation of a new public sphere.

In the introduction to this work, I examined the work of fin-de-siècle and early modernist dystopians, who absorbed the lessons of their recent past and probed their present to speculate on the state of the world in the future. In my conclusion, I would like to similarly speculate on how a critical voice of the early twenty second century may approach the novels in this thesis similarly, as documents of an anxious provisional moment in history. I would like to make a set of propositions for what digital culturists will pursue in narrative towards the culmination of the twenty first century, based on my own analysis.

1. As commodities continue to be imbued with intelligence and the semblance of consciousness, how subjectivity is conceived of will change. Fictional narratives will respond to these expanding horizons, and to the possible prioritization of adaptive intelligence over consciousness.
2. Novelistic genres will further hybridize and diffuse to accommodate the changing structures of realist modes.
3. Novels will become more preoccupied with data storage, harvesting and potential cultural products assembled from this raw data; and continue to actively resist and challenge Dataism in their structure.



4. Fiction will resist the exclusionary and generalizing tendencies of Dataism and continue to assert the value of registering technological changes in the imagination.

## **Bibliography**

- Abbott, H. P. (2011). Time, Narrative, Life, Death, & Text-Type Distinctions: The Example of Coetzee's Diary of a Bad Year. *Narrative*, 19 (2), pp.187-200.
- Abraham, K. G., Adams, G. R., and Markstrom, C. A. (1987). The Relations Among Identity Development, Self-Consciousness, and Self-Focusing During Middle and Late Adolescence. *Developmental Psychology*, 23 (2), pp.292-97.
- Adichie, C. N. (2009). *The Danger of a Single Story* [online]. TED. Available at: [https://www.ted.com/talks/chimamanda\\_adichie\\_the\\_danger\\_of\\_a\\_single\\_story/](https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story/) [Accessed 4<sup>th</sup> February 2015].
- Agamben, G. (2010). *Nudities*. Stanford, CA: Stanford University Press.
- Alloway, T. Runac, R. Qureshi, M. & Kemp, G. (2014). 'Is Facebook Linked to Selfishness? Investigating the Relationships among Social Media Use, Empathy, and Narcissism. [online] *Social Networking*, (3). Available at: <http://dx.doi.org/10.4236/sn.2014.33020> [Accessed 7<sup>th</sup> February 2015].
- Anon. (2006). Books Briefly Noted: The Keep. [online] *The New Yorker*. Available at: <https://www.newyorker.com/magazine/2006/08/21/the-keep> [Accessed 7<sup>th</sup> January 2016].
- APA, (2012). DSM-IV and DSM-5 Criteria for the Personality Disorder [online]. The American Psychiatric Association. Available at: [http://www.psi.uba.ar/academica/carrerasdegrado/psicologia/sitios\\_catedras/practicas\\_profesionales/820\\_clinica\\_tr\\_personalidad\\_psicosis/material/dsm.pdf](http://www.psi.uba.ar/academica/carrerasdegrado/psicologia/sitios_catedras/practicas_profesionales/820_clinica_tr_personalidad_psicosis/material/dsm.pdf) [Accessed 15<sup>th</sup> February 2015]
- Appadurai, A. (1996) *Modernity At Large: Cultural Dimensions of Globalization*. Minneapolis, MN: University of Minnesota Press.
- Armstrong, N. & Tennenhouse, L. (2015). 'The Network Novel and How It Unsettled Domestic Fiction. In: M. H. Stephen Arata, J. Paul Hunter, Jennifer Wicke eds. *A Companion to the English Novel*. Oxford: Wiley. pp.306-320.
- Attridge, D. (2004). *J. M. Coetzee and the Ethics of Reading*. Chicago, IL: University of Chicago Press.

- Atwood, M. (2013). When Privacy is Theft. [online] *The New York Review of Books*.  
Available at: <http://www.nybooks.com/articles/2013/11/21/eggert-circle-when-privacy-is-theft/> [Accessed 9th September 2016].
- Auster, P. & Coetzee, J. M. (2013). *Here and Now: Letters 2008-2011*. London: Faber & Faber.
- Bachelard, G. (1969). *The Poetics of Space*. Boston, MA: Beacon Press.
- Badham, V. (2015). It hurts, but I'm going to defend Ashley Madison and 33 million adulterers. [online] *The Guardian*. Available at: <https://www.theguardian.com/commentisfree/2015/jul/21/it-hurts-but-im-going-to-defend-ashley-madison-and-37-million-cheaters> [Accessed 21<sup>st</sup> July 2015].
- Bahr, D. (2006). The Keep Review [online]. *Time Out New York*. Available at: <http://jenniferegan.com/reviews/> [Accessed 2<sup>nd</sup> February 2016].
- Ballard, J. G. (1973/1996). *Crash*. London: London: Faber & Faber.
- Barbrook, R. & Cameron, A. (1995). The Californian Ideology [online]. *Imaginary Futures*.  
Available at: <http://www.imaginaryfutures.net/2007/04/17/the-californian-ideology-2/> [Accessed 14<sup>th</sup> September 2016].
- Barlow, J. P. (1996). A Declaration of the Independence of Cyberspace [online].  
<https://www.eff.org/cyberspace-independence> [Accessed 15th December 2015].
- Barnes, J. (2011). *A Sense of an Ending*. London: Vintage.
- Barthes, R. (1957/1993). *Mythologies*. London: Vintage Classics.
- Batty, M. & Miller, H. J. (2013). Representing and Visualising Physical, Virtual and Hybrid Information Spaces. in D. G. Janelle & D. C. Hodge eds. *Information, Place, and Cyberspace: Issues in Accessibility*. Oxford: Springer, 113. pp.375-392
- Baudrillard, J. (1988). *America*. London: London: Verso.
- Bauman, Z. (1998). *Globalization*. Cambridge: Polity Press.
- Bauman, Z. & Donkski, L. (2013). *Moral Blindness*. Cambridge: Polity Press.
- Beckett, S. (1959/1998). *Krapp's Last Tape and Embers*. London: Faber.
- Benjamin, W. (1935/2008). *Art in the Age of Mechanical Reproduction*. London: Penguin.
- Berger, J. (2008). *Ways of Seeing*. London: Penguin.
- Berghel, H. (2017). Net Neutrality Reloaded. [online] *Computer*, 50 (10), pp.68-72.  
Available at: [10.1109/MC.2017.3641632](https://doi.org/10.1109/MC.2017.3641632) [Accessed 19<sup>th</sup> January 2018]
- Bergson, H. (1910). *Time and Free Will: An Essay on the Immediate Data of Consciousness*. London: Allen.
- Berman, D. K. (2013). Dave Eggers's 'The Circle' Takes Vengeance on Google, Facebook. [newspaper] *Wall Street Journal*. New York, NY.

- Black, B. (2011). A Novel for Nerds. [online] *Edmonton Journal*. Available at: <https://search.proquest.com/docview/908707655?accountid=14182>. [Accessed 9<sup>th</sup> October 2016]
- Bloom, P. (2016). *Against Empathy: The Case for Rational Compassion*. New York: HarperCollins.
- Blythe, W. (2010). To Their Own Beat. [online]. *New York Times*. Available at: <https://www.nytimes.com/2010/07/11/books/review/Blythe-t.html>. [Accessed 15<sup>th</sup> February 2016]
- Borges, J. L. (1970). *The Aleph and Other Stories, 1933-1969*, 1st ed. New York: E. P. Dutton.
- Borges, J. L. (1962/2004). *Labyrinths: Selected Stories & Other Writings*. New York: New Directions.
- Boulton, A. & Zook, M. (2013). 'Landscape, Locative Media and the Duplicity of Code'. In J. Nuala C, Richard H. Schein & Jamie Winders ed. *The Wiley-Blackwell Companion to Cultural Mapping*. Oxford: Wiley-Blackwell. pp.437-450
- Bourdieu, P. (2002). The Forms of Capital. In Richardson, J. ed. *Handbook of Theory and Research for the Sociology of Education*. Westport, CT: Greenwood. pp.241-58.
- Boxall, P. (2006). *Don DeLillo: The Possibility of Fiction*. London: Routledge.
- Boxall, P. (2013). *Twenty-First-Century Fiction: A Critical Introduction*. London: Routledge.
- Boxall, P., Jonik, M., Coetzee, J. M., Franklin, S., Milne, D., Felski, R., Salisbury, L., Attridge, D., Royle, N., Marcus, L., Stonebridge, L., Cheyette, B., Rabaté, J. Connor, S., Hadfield, A., Boehmer, E., Perloff, M., Belsey, C., Jarvis, S., Josipovici, G., Eaglestone, R., Marriott, D., Duvall, J., Feigel, L., Sheehan, P., Luckhurst, R., Middleton, P., Bowlby, R., Sutherland, K. & Smith, A. (2016). 30@30: The Future of Literary Thinking. [online] *Textual Practice*, 30 (7), pp.1149-1185. Available at: <https://www.tandfonline.com/doi/full/10.1080/0950236X.2016.1252578> [Accessed 1<sup>st</sup> December 2016]
- Boxall, P. & DeLillo, D. (2018) The Edge of the Future: A Discussion with Don DeLillo, in *Don DeLillo: Contemporary Critical Perspectives*, eds. Da Cunha Lewin, K. & Ward, K. London: Bloomsbury. pp.159-164.
- Brevini, B. (2017). WikiLeaks: Between Disclosure and Whistle-blowing in Digital Times. [online] *Sociology Compass*, 11 (3). Available at: <https://doi.org/10.1111/soc4.12457>. [Accessed 2<sup>nd</sup> April 2017]
- Brockes, E. (2011). A Life in Writing: Jennifer Egan [online]. *The Guardian* Available at: <http://www.theguardian.com/culture/2011/may/07/jennifer-egan-life-goon-squad> [Accessed 29<sup>th</sup> September 2016]

- Bruckner, D. W. (2009). In Defence of Adaptive Preferences. *Philosophical Studies*, 142 (3) pp.307-324.
- Burgess, M. (2016). 'Snooper's Charter Could Be Repealed After Petition Forces It Back to The House of Commons'. [online] *Wired*. Available at: <http://www.wired.co.uk/article/petition-snoopers-charter-ip-bill>. [Accessed 29th September 2016]
- Byatt, J. (2012). Being Dead? Trauma and the Liminal Narrative in J. G. Ballard's *Crash* and Tom McCarthy's *Remainder*. *Forum for Modern Language Studies*, 48 (3), pp.245-259.
- Calloway-Thomas, C. (2010) *Empathy in the Global World: An Intercultural Perspective*. London: Sage
- Calvino, I. (1972/2002). *Invisible Cities*. London: Vintage.
- Caporaletti, S. (1997). Science as nightmare: "The Machine Stops" by E. M. Forster. [online] *Utopian Studies*, 8 (2), 32. Available at: <https://www.jstor.org/stable/20719683>. [Accessed 3rd December 2017]
- Cardoen, S. (2014). The Grounds of Cynical Self-Doubt: J. M. Coetzee's Boyhood, Youth and Summertime. *Journal of Literary Studies*, 30 (1), pp.94-112. Available at: <https://www.tandfonline.com/doi/abs/10.1080/02564718.2014.887624> [Accessed 16th March 2015]
- Carruth, A. (2014). The Digital Cloud and the Micropolitics of Energy'. [online] *Public Culture*, 26 (2 73). Available at: <https://doi.org/10.1215/08992363-2392093>. [Accessed 2nd February 2016] pp.339-364.
- Caruth, C. (1996). *Unclaimed Experience: Trauma, Narrative, and History*. Baltimore: Johns Hopkins University Press.
- Cassirer, E. (1966). *Philosophy of the Enlightenment*. Boston, MA: Beacon Press.
- Castells, M. (1991). *The Informational City: Economic Restructuring and Urban Development*. Oxford: Wiley.
- Chandler, D. (2015). *Glitching modernism: Broken Machinery and Textual Malfunction in Modernism and New Media*. [Online] ProQuest Dissertations Publishing. [Accessed 16th June 2017]
- Charney, L. (1995). In a Moment: Film and the Philosophy of Modernity. in Charney, L. and Schwartz, V. ed. *Cinema and the Invention of Modern Life*. Berkeley, CA: University of California Press. pp.279-319.
- Chitty, G. John Ruskin & the Historic Environment. [online]. *Rudi*. Available at: <https://www.rudi.net/books/11620> [Accessed 2nd November 2016]

- Chun, W. H. K. (2013). *Programmed Visions: Software and Memory*. Cambridge, MA: MIT Press.
- Chun, W. H. K. (2016). Big Data as Drama. [online] *ELH*, 83 (2) pp.363-382. Available at: <https://muse.jhu.edu/article/621631> [Accessed 24<sup>th</sup> April 2018]
- Clark, A. (2014). Anxiety of Influence: How Facebook And Twitter Are Reshaping the Novel. [newspaper] *New Statesman*. Available at: <https://www.newstatesman.com/culture/2014/04/anxiety-influence-how-facebook-and-twitter-are-reshaping-novel>. [Accessed 16th February 2015]
- Cocozza, p.& Jeffries, S. (2016). Goodbye To Curtains and Clutter: How We Learned To Buy Less Stuff. [online] *The Guardian* Available at: <http://www.theguardian.com/society/2016/mar/01/goodbye-curtains-clutter-learned-to-buy-less-stuff-shopping> [Accessed 10th October 2016]
- Coetzee, J. M. (1992). *Doubling the Point*. Cambridge, MA: Harvard University Press.
- Coetzee, J. M. (1999). *The Lives of Animals*. Princeton, NJ: Princeton University Press.
- Coetzee, J. M. (2004). *Elizabeth Costello*. London: Vintage.
- Coetzee, J. M. (2008). *Diary of a Bad Year*. London: Vintage.
- Coetzee, J. M. (2009). *Summertime: Scenes from Provincial Life*. London: Harvill Secker.
- Cohen, J. (2013). *The Private Life: Why We Remain in the Dark*. London: Granta Books.
- Coplan, A. (2011). Understanding Empathy: Its Features and Effects. in *Empathy: Philosophical and Psychological Perspectives* eds. Coplan, A. and Goldie, p. Oxford: Oxford University Press
- Corrigan, J. A. & Ng-A-Fook, N. (2012). Mobilizing Curriculum Studies in a (Virtual). World: Open Access, Edupunks, and the Public Good. [online] *Canadian Journal of Education*, 35 (2). pp.58-76. Available at: <https://www.jstor.org/stable/canajeducrevucan.35.2.58>. [Accessed 11th February 2016]
- Cox, C. & Egan, J. (2010). 'At Work' [online]. *The Paris Review*. Available at: <http://www.theparisreview.org/blog/2010/06/25/qa-jennifer-egan> [Accessed 2nd February 2016]
- Crystal, D. (2006). *Language and the Internet*. Cambridge: Cambridge University Press.
- Damasio, A. R. (2000). *The Feeling of What Happens: Body, Emotion and the Making of Consciousness*. London: Vintage.
- Dante, (1320/2008). *The Divine Comedy*. Oxford: Oxford University Press.
- Dasgupta, S. (2002). On Screen: Electronic Media and the Embodied Subject' *Etnofoor*, [online] 15. pp.121-130. Available at: <http://www.jstor.org/stable/25758027>. [Accessed 14th January 2015]

- Davies Boren, Z. (2015). Reddit In Revolt: Moderators Shut Down Popular Parts of The Website In Solidarity With Fired Friend. [online] *The Independent*. Available at: <https://www.independent.co.uk/life-style/gadgets-and-tech/news/reddit-in-revolt-moderators-shut-down-popular-parts-of-the-website-in-solidarity-with-fired-friend-10363099.html> [Accessed 18<sup>th</sup> October 2016]
- Dawesar, A. (2013). 'Life in the Digital Now'. TED. [online] Available at: [https://www.ted.com/talks/abha\\_dawesar\\_life\\_in\\_the\\_digital\\_now](https://www.ted.com/talks/abha_dawesar_life_in_the_digital_now). [Accessed 15th January 2015]
- De Lauretis, T. (1987). *Technologies of Gender: Essays on Theory, Film, and Fiction*. Bloomington, IN: Indiana University Press.
- Debord, G. (1983). *Society of the Spectacle*. Detroit, MI.: Black & Red.
- Decety, J. and Jackson, P.L. (2006). A Social-Neuroscience Perspective on Empathy. *Current Directions in Psychological Science* [online] 15 (2) Available at: <https://journals.sagepub.com/doi/10.1111/j.0963-7214.2006.00406.x>. [Accessed 2nd March 2015]
- DeLillo, D. (2001). *The Body Artist: a Novel*. London: Picador.
- DeLillo, D. (2016) *Zero K*. London: Picador.
- Derek, G. (2017). The Territory of the Screen. *MediaTropes*, [online] 6 (2). pp.126-147. Available at: <https://doaj.org/article/deb5e4e094ef42a19c4fb9fe55292086>, [Accessed 15<sup>th</sup> April 2018]
- Derrida, J. (1988). *Limited, Inc*. Evanston, IL: Northwestern University Press.
- Doloughan, F. (2010). Bottling the Imagination: Writing as Metamorphosis in Ali Smith's Girl Meets Boy. *New Writing*, [online] 7 (3), pp.241-251. Available at: <https://doi.org/10.1080/14790726.2010.514926>, [Accessed 4<sup>th</sup> Jun2 2017]
- Donald, J. (1992). 'Metropolis: The City as Text.' In: Bocock, R. Hall, S. and Thompson, K. ed. *Social and Cultural Forms of Modernity*, Cambridge: Polity Press, pp.417-461.
- du Toit, L. (2017). Facing the Sexual Demon of Colonial Power: Decolonising Sexual Violence in South Africa. [online] *European Journal of Women's Studies*, [online] 25 (2), pp.214-227. Available at: <https://doi.org/10.1177/1350506817732589> [Accessed 11th May 2018]
- Easton, T. K. N. (1995). Text and Hinterland: J. M. Coetzee and the South African Novel. *Journal of Southern African Studies* [online] 21 (4), pp.585-599. Available at: <https://www.jstor.org/stable/2637210> [Accessed 22nd March 2015]
- Editorial. (2013a) 'Business is Great Britain' [online]. *UK Government* Available at: <http://www.greatbusiness.gov.uk/> [Accessed 14<sup>th</sup> September 2016]



- Editorial. (2018). Cambridge Analytica Controversy Must Spur Researchers to Update Data Ethics. *Nature*, [online] 555 (7698). Available at: <https://www.nature.com/articles/d41586-018-03856-4> [Accessed 11<sup>th</sup> April 2018]
- Editorial (2013c). Everything Everywhere: A Novel Where the Company Is King and Conqueror. [online] *The Economist*. Available at: <https://www.economist.com/business-books-quarterly/2013/10/10/everything-everywhere> [Accessed 11th September 2016]
- Editorial, (2016) Making the Most of Social Media [online]. *Lloyds Bank*. Available at: <https://resources.lloydsbank.com/business-guides/digital-know-how/making-the-most-of-social-media/> [Accessed 5<sup>th</sup> November 2016]
- Editorial. (2013b) [online]. Project CEDE Research: What are the Aims of the Project? Available at: <http://projectcede.org/research-2/> [Accessed 2<sup>nd</sup> April 2016]
- Editors. (2018). "computer, n." in: *OED Online* [online]. Oxford: Oxford University Press. Available at: <http://www.oed.com/view/Entry/37975> [Accessed 11<sup>th</sup> December 2017].
- Editors. (2018). "trauma, n. " in: *OED Online* [online]. Oxford: Oxford University Press. Available at: <http://www.oed.com/view/Entry/205242> [Accessed 14<sup>th</sup> July 2017].
- Editors, (2018). "telegraphy, n. "in *OED Online* [online]. Oxford: Oxford University Press. Available at: <http://www.oed.com/view/Entry/198694> [Accessed 14<sup>th</sup> July 2017].
- Edwards, J. Haugerud, A. and Parikh, S. (2017). Introduction: The 2016 Brexit Referendum and Trump Election. *American Ethnologist*, [online] 44 (2), pp.195-200. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/amet.12467/full> [Accessed 13th July 2017]
- Egan, J. (2006). *The Keep*. London: Hachette
- Egan, J. (2011). *A Visit from the Goon Squad*. London: Corsair.
- Egan, J. and Julavits, H. (2010). ' Jennifer Egan'. *BOMB* [online] 112. Available at: <https://bombmagazine.org/articles/jennifer-egan/> [Accessed 2<sup>nd</sup> March 2016]
- Eggers, D. (2014). *The Circle*. New York: Random House.
- Eliot, T. S. (1922/1999). *The Waste Land and Other Poems*. London: Faber & Faber.
- Fast, O. (2015). *Remainder*. Soda Pictures UK.
- Ferrell, K. William (2000). *Literature and Film as Modern Mythology*. Westport CT: Praeger Publishers.
- Ferriss, H. (1929/2005). *The Metropolis of Tomorrow*. London: Dover Architecture.
- Filimon, E. C. (2013). *Heterotopia in Angela Carter's Fiction: Worlds in Collision*. Hamburg: Anchor Academic Publishing



- Fisher, W. A. and Barak, A. (2001). Internet Pornography: A Social Psychological Perspective on Internet Sexuality. *Journal of Sex Research*, 38 (4), pp.312-323.
- Flanery, P. (2014). Review of *How to Be Both*. In *The Telegraph* (newspaper) Available at: <https://www.telegraph.co.uk/culture/books/bookreviews/11061768/How-to-Be-Both-by-Ali-Smith-review-brimming-with-pain-and-joy.html> [Accessed 14th June 2017]
- Fong, F. A. (1999). *Sustainable Cities in the 21st Century* Singapore: Singapore University Press.
- Forster, E. M. (1909/1997). *The Machine Stops and Other Stories*. London: André Deutsch.
- Foucault, M. (1986). Of Other Spaces. *Diacritics*, 16 (1), pp.22-27.
- Franklin, S. (2012). Cloud Control, or The Network as Medium. *Cultural Politics*, 8 (3), pp.443-464.
- Franzen, J. (2015). Modern life has become extremely distracting [online]. *The Guardian*. Available at: <http://www.theguardian.com/books/2015/oct/02/jonathan-franzen-writing-freedom> [Accessed 19th January 2016]
- Freud, S. (1959). *The Complete Psychological Works of Sigmund Freud*. London: Hogarth Press
- Freud, S. (2006). *The Penguin Freud Reader*. London : Penguin.
- Frye, N. (1957). *Anatomy of criticism : Four Essays*. Princeton, NJ: Princeton University Press.
- Gabriel, Y. and Lang, T. (2006). *The Unmanageable Consumer, 2nd Edition*. London: Sage.
- Galbraith, J. K. (1958). *The Affluent Society*, Boston, MA: Houghton Mifflin.
- Gangloff, N. (2017). *Human Rights to Data*. Dallas, TX: Southern Methodist University.
- Gergen, K. J. (1994). 'The Limits of Pure Critique'. In: Simons, H.W. and Billig, M. eds. *After Postmodernism : Reconstructing Ideology Critique*. London: Sage, pp.58-78.
- Ghezzi, A. (2014). *The Ethics of Memory in a Digital Age: Interrogating the Right to be Forgotten*. in Ghezzi, A., Pereira Â. G. and Vesnić-Alujević, L. eds. London: Palgrave Macmillan.
- Gibson, W. (1984/1995). *Neuromancer*. London: Voyager.
- Gioia, T. (2013). 'The Rise of the Fragmented Novel' [online] Available at: <http://www.fractionfiction.com/rise-of-the-fragmented-novel> [Accessed 11<sup>th</sup> February 2016]
- Gladwell, M. (2010). Small Change: Why the revolution will not be tweeted [online]. *The New Yorker*. Available at:

- <https://www.newyorker.com/magazine/2010/10/04/small-change-3?currentPage=all> [Accessed 11<sup>th</sup> November 2015]
- Glitsos, L. (2017). Screen as Skin: The Somatechnics of Touchscreen Music Media. *Somatechnics*, 7 (1), pp.142-165.
- Gordon, A. and Klein, B. (2011). *Literature, Mapping, and the Politics of Space in Early Modern Britain*. Cambridge: Cambridge University Press.
- Gore, A. (1998). The Digital Earth: Understanding our planet in the 21st Century [online]. Available at: <http://www.hunagi.hu/G/pub/Globalis/DE-AlGore.pdf> [Accessed 11th February 2016]
- Greenfield, S. (2014). *Mind Change*. London: Ebury.
- Greenhouse, C. (2014). Time's Up, Timed Out: Reflections on Social Time and Legal Pluralism. [online] *The Journal of Legal Pluralism and Unofficial Law*, 46 (1). pp.141-153 Available at: <https://doi.org/10.1080/07329113.2014.882102> [Accessed 20<sup>th</sup> February 2016]
- Gregory, I. (2010) *Mapping the English Lake District: a literary GIS* [online]. Available at: <https://doi.org/10.1111/j.1475-5661.2010.00405.x> [Accessed 20<sup>th</sup> February 2016]
- Guerlac, S. (2006). *Thinking in Time: An Introduction to Henri Bergson*. Ithaca, NY: Cornell University Press.
- Gullòn, R. (1975). On Space in the Novel. [online] *Critical Inquiry*, 2 (1). pp.11-28, Available at: <https://doi.org/10.1086/447824> [Accessed 19th February 2016]
- Hammersley, B. (2012). *64 Things You Need to Know Now for Then*. London: Hodder & Stoughton.
- Harari, Y. N. (2015). *Homo Deus*. London: Vintage.
- Haraway, D. (1991). *Simians, Cyborgs and Women: The Reinvention of Nature*. London: Free Association.
- Harris, J. (2015). Transnational Capital and The Technology of Domination and Desire. *Race & Class*, [online] 57 (1), pp.3-19. Available at: <https://journals.sagepub.com/doi/pdf/10.1177/0306396815581780>. [Accessed 13th September 2016]
- Hart, M. Jaffe, A. and Eburne, J. (2013). An Interview with Tom McCarthy. *Contemporary Literature*, [online] 54 (4), pp.656-682. Available at: <https://muse.jhu.edu/article/537956/pdf> [Accessed 7th July 2017]
- Hayles, N. K. (1999). *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, And Informatics*. Chicago, IL: University of Chicago Press.

- Hayles, N. K. (2012). *How We Think: Digital Media and Contemporary Technogenesis*. Chicago, IL: University of Chicago Press.
- Hayles, N. K. (2017). *Unthought: The Power of the Cognitive Nonconscious*. Chicago, IL: University of Chicago Press.
- Hebert, S. (2008). *Digital Memorialization: Collective Memory, Tragedy, And Participatory Spaces*. In: Russell, A., Schofield-Clark, L., Stott, A. and Weaver, T. eds. ProQuest Dissertations Publishing.
- Heidegger, M. (1959/2001). *Poetry, Language, Thought*. New York, NY: Perennial Classics.
- Hesselberth, P. (2017). Discourses on Disconnectivity And the Right to Disconnect. *New Media & Society*. [online] 20 (5) pp.1994-2010. Available at: <https://doi.org/10.1177/1461444817711449> [Accessed: 8<sup>th</sup> June 2017]
- Hodges, A. (2014). *Alan Turing: The Enigma*. London: Vintage.
- Hoffmann, E. T. A. (1817/2004). *Tales of Hoffmann*. Hollingdale, R.J. trans. London: Penguin Classics
- Holman, E. A. Garfin, D. R. and Silver, R. C. (2014). Media's Role in Broadcasting Acute Stress Following the Boston Marathon Bombings. *PNAS* [online] 111 (1) pp. 93-98. Available at: <https://doi.org/10.1073/pnas.1316265110> [Accessed 22nd August 2017]
- Horton, E. (2012). "Everything You Ever Dreamed": Post-9/11 Trauma and Fantasy in Ali Smith's *The Accidental*. [online] *MFS Modern Fiction Studies*, 58 (3), pp.637-654. Available at: <https://muse.jhu.edu/article/486400> [Accessed 13th May 2017]
- Howard, P.N. (2005). Deep Democracy, Thin Citizenship: The Impact of Digital Media in Political Campaign Strategy. *The ANNALS of the American Academy of Political and Social Science*, [online] 597 (1), pp.153-170. Available at: <https://journals.sagepub.com/doi/abs/10.1177/0002716204270139> [Accessed 11th October 2016]
- Howse, M. and Whitaker, P. (2016). Investigatory Powers Act Becomes UK Law. [online] *Mondaq Business Briefing*. Available at: <https://www-nexis-com.ezproxy.sussex.ac.uk/docview/getDocForCuiReq?lni=5MCT-07C1-JCF5-V4G4&csi=149522&oc=00240&perma=true> [Accessed 3<sup>rd</sup> March 2018]
- Hu, T-H. 2015. *A Prehistory of the Cloud*. Cambridge: MA. MIT Press.
- Huxley, Aldous. (1931/2007) *Brave New World*. London: Vintage.
- Isaacson, W. (2014). *The Innovators*. London: Simon & Schuster.
- Jenkins, H. (2008). *Convergence Culture: Where Old and New Media Collide*. New York, NY: New York University Press.

- Jernigan, J. (2011). Review: Time Passes. *The Women's Review of Books*, 28 (2), pp.3-5.
- Jones, S. (2017). Disrupting the Narrative: Immersive Journalism in Virtual Reality. *Journal of Media Practice*, 18(2-3), (online) pp.171-185. Available at: <https://doi-org.ezproxy.sussex.ac.uk/10.1080/14682753.2017.1374677> [Accessed 6th January 2018]
- Jonsson, E. (2012). "Man Is the Measure": Forster's Evolutionary Conundrum. [online] *Style*, 46 (2), pp.161-176. Available at: <https://www.jstor.org/stable/10.5325/style.46.2.161> [Accessed 6th February 2016]
- Kalan, S. Chauhan, S. Coelho, R. Orvieto, M. Camacho, I. Palmer, K. and Patel, V. (2010). History of Robotic Surgery. *Journal of Robotic Surgery*, 4 (3), pp.141-147.
- Kant, I. (1790/2000). *Critique of The Power of Judgment*. Cambridge: Cambridge University Press.
- Kavenna, J. (2016). Autumn by Ali Smith Review – A Beautiful, Transient Symphony. [online] *The Guardian*. Available at: <https://www.theguardian.com/books/2016/oct/12/autumn-ali-smith-review> [Accessed 5th April 2017]
- Keen, A. (2007). *The Cult of the Amateur*. London: Nicolas Brealey.
- Keen, A. (2015). *The Internet is Not the Answer*. New York, NY: Atlantic Monthly Press.
- Keen, S. (2006). A Theory of Narrative Empathy. *Narrative*, 14 (3), pp.207-236.
- Kelly, K. (2011). *What Technology Wants*. London: Penguin.
- Kelly, S. and McCarthy. T. (2010). *Edinburgh International Book Festival*. [podcast] Tom McCarthy 2010 Event. Available at: [http://eibf.s3.amazonaws.com/audio/2010/Tom\\_McCarthy\\_29Aug\\_1800\\_Event1691.mp3](http://eibf.s3.amazonaws.com/audio/2010/Tom_McCarthy_29Aug_1800_Event1691.mp3) [Accessed 15<sup>th</sup> July 2017].
- Kenway, J. (1996). The Information Superhighway and Post-Modernity: The Social Promise and the Social Price. *Comparative Education*, 32 (2), pp.217-231.
- Kittler, F. A. (2009). *Optical Media*. Cambridge: Polity Press.
- Kittler, F. A. (1990). *Discourse Networks, 1800-1900*. Stanford, CA: Stanford University Press.
- Kittler, F. A. (1997). *Literature, Media, Information Systems: Essays*. Amsterdam: G&B Arts.
- Kittler, F. A. (1999). *Gramophone, Film, Typewriter*. Stanford, CA: Stanford University Press.
- Kleist, H. v. (1801/1972). On the Marionette Theatre. *The Drama Review*, 16 (3), pp.22-26.
- Kristensen, M. L. (2018). Mindfulness and Resonance in An Era of Acceleration: A Critical Inquiry. *Journal of Management, Spirituality & Religion*, 15 (2), pp.178-195.

- Kutchinsky, S. (2014). Has Technology Changed Cultural Taste? [online] *The Guardian*. Available at: <https://www.theguardian.com/culture-professionals-network/2014/oct/31/-sp-technology-cultural-taste-youtube-vloggers-vice> [Accessed 1<sup>st</sup> September 2016]
- Lanier, J. (2011). *You Are Not a Gadget: A Manifesto*. London: Penguin.
- Lanier, J. (2013). *Who Owns the Future?* London: Allen Lane.
- Lea, D. (2012). The Anxieties of Authenticity in Post-2000 British Fiction. *Modern Fiction Studies* 58 (3), pp.459-476.
- Leeuw, K. d. and Bergstra, J. A. (2007). *The History of Information Security: A Comprehensive Handbook*. Oxford: Elsevier.
- Leibold, J. (2011). Blogging Alone: China, the Internet, and the Democratic Illusion? *The Journal of Asian Studies*, 70 (4), pp.1023-1041.
- Lévy, P. (1999). *Collective Intelligence: Mankind's Emerging World in Cyberspace*. New York: Basic Books.
- Lévy, P. (1998). *Becoming Virtual: Reality in The Digital Age*. London: Plenum.
- Liorsi, B. (2017). The ante-tempus novel: Prevention and patienthood in recent speculative fiction. *Textual Practice*, pp.1-21.
- Lizardo, O. (2006). How Cultural Tastes Shape Personal Networks. *American Sociological Review*, 71 (5), pp.778-807.
- Lohr, S. (2015) *Data-ism: The Revolution Transforming Decision Making, Consumer Behaviour, and Almost Everything Else*. London: HarperCollins.
- Lowry, E. (2008). The Hermeneutic Reflex. *Scrutiny* 2, 13(1), pp.60-67.
- Luke, T. L. (1997). *Eco critique: Contesting the Politics of Nature, Economy, and Culture*. Minneapolis, MN: University of Minnesota Press.
- Lyn, E. (2011) Fifteen Million Merits. *Black Mirror (TV Series 2011-)*. Channel 4
- Lyon, D. (1994). *The Electronic Eye: The Rise of Surveillance Society*. Oxford: Polity Press.
- MacDonald, R. (2007). *The Death of the Critic*. London: Continuum.
- Mack, C. (2011). Fifty Years of Moore's Law. *Semiconductor Manufacturing, IEEE Transactions on*, 24(2), pp. 202-207.
- Mahdavi-Amiri, A. Alderson, T. and Samavati, F. (2015). A Survey of Digital Earth. *Computers & Graphics*, 53 (Part B), pp.95-117.
- Manca, J. (1993). Francesco Del Cossa's Call for Justice. [online] *Source: Notes in the History of Art*, 12 (3), pp.12-15. Available at: <https://doi.org/10.1086/sou.12.3.23203391> [Accessed 3rd April 2017]

- Marchand, P. (1998). *Marshall McLuhan: The Medium and The Messenger: A Biography*. Cambridge, MA: MIT Press
- Marx, G. T. (2007). What's New About The 'New Surveillance?' Classifying for Change and Continuity. In: Hier, S. P. and Greenberg, J. eds. *The Surveillance Studies Reader*. pp.83-94. Maidenhead: Open University Press,
- Mason, C. (2010). 'Scrutinizing Nick Clegg's Desert Island Choices' [online]. BBC News. Available at: <http://www.bbc.co.uk/news/uk-11613929> [Accessed 9th September 2016]
- Masterson, J. (2016a). Floods, Fortresses, and Cabin Fever: Worlding "Domeland" Security in Dave Eggers's *Zeitoun* and *The Circle*. *American Literary History*, 28 (4), pp.721-739.
- Masterson, J. (2016b). "It's Not Dark Yet, but It's Getting There": Listening for the End Times in the Contemporary American Novel. *Studio Neophilologica* 88 (1), pp.68-80
- McCarthy, T. (2010). C. London: Jonathan Cape.
- McCarthy, T. (2011a). Interview with Tom McCarthy. In: Fernandez Armesto, F. ed. *The White Review* 1. Available at: <http://www.thewhitereview.org/feature/interview-with-tom-mccarthy-2/> [Accessed 4<sup>th</sup> March 2016]
- McCarthy, T. (2011b). *Remainder*. Richmond: Alma Books
- McCarthy, T. (2014). 'Introduction'. In: Obrist, H. U. ed. *Mapping It Out: An Alternative Atlas of Contemporary Cartographies*. London: Thames & Hudson.
- McCarthy, T. (2015a) Everything Becomes Buffering (*BBC Newsnight, TV Series 1980-*). BBC One.
- McCarthy, T. (2015) *Installation at fig-2*. [Installation] London: The Institute of Contemporary Arts.
- McCarthy, T. (2015c). *Satin Island*. London: Jonathan Cape.
- McCarthy, T. and Critchley, S. Manifesto of the International Necronautical Society [online]. Available at: <http://www.necronauts.org/manifesto2.htm> [Accessed 4th March 2016]
- McCarthy, T. and Dickinson, R. (2006). Greenwich Degree Zero. [Installation] London: Hayward Gallery.
- McLuhan, M. (1962). *The Gutenberg Galaxy: The Making of Typographic Man*. London: Routledge & Kegan Paul.
- McLuhan, M. (1967/2008). *The Medium Is the Massage: An Inventory of Effects*. London: Penguin
- McLuhan, M. (2001). *Understanding Media: The Extensions of Man*. London: Routledge.

- McNeill, L. and Zuern, J. D. (2015). Online Lives 2. 0: Introduction. *Biography*, 38 (2), pp. v-xlvi.
- McSweeney, T. (2014). A Brief Q&A with Dave Eggers [online]. *McSweeney's*. Available at: <http://www.mcsweeney.net/articles/a-brief-q-a-with-dave-eggers-about-his-new-novel-the-circle> [Accessed 19<sup>th</sup> October 2016]
- Menell, P.S. (2013). Brand Totalitarianism. [online] *U. C. Davis Law Review*, 47 (3) pp.787-819. Available at: [https://lawreview.law.ucdavis.edu/issues/47/3/Symposium/47-3\\_Menell.pdf](https://lawreview.law.ucdavis.edu/issues/47/3/Symposium/47-3_Menell.pdf) [Accessed 19th October 2016]
- Meyrowitz, J. (1985). *No Sense of Place: The Impact of Electronic Media on Social Behaviour*. Oxford: Oxford University Press.
- Miller, S. (2015). Intentional Fallacies: (Re)enacting the Accidental in Tom McCarthy's Remainder. *Contemporary Lit.* 56 (4), pp.634-659.
- Milner, G. (2016). *Pinpoint: How GPS is Changing Our World*. London: Granta.
- Moorey, G. (2014). Aging, Death, and Revival: Representations of the Music Industry in Two Contemporary Novels. [online] *Popular Music and Society*, 37 (1) pp.65-84. Available at: <https://doi.org/10.1080/03007766.2012.726036> [Accessed 9th March 2016]
- Morozov, E. (2012). *The Net Delusion: How Not to Liberate the World*. London: Penguin.
- Morozov, E. (2013). The Perils of Perfection [online] *The New York Times*. Available at: <https://www.nytimes.com/2013/03/03/opinion/sunday/the-perils-of-perfection.html>. [2nd March 2016]
- Morozov, E. (2014). *To Save Everything Click Here*. London: Penguin.
- Munro, I. (2017). Whistle-Blowing and The Politics of Truth: Mobilizing 'Truth Games' in The WikiLeaks Case. *Human Relations*, 70 (5), pp.519-543.
- Nakamura, L. (2008). *Digitizing Race: Visual Cultures of The Internet*. Minneapolis, MN: University of Minnesota Press
- Nakamura, L. (2015). Blaming, Shaming and the Feminization of Social Media. pp.221-228. In: Dubrofsky, R. E. and Magnet, S. eds. *Feminist Surveillance Studies*. Durham, NC: Duke University Press,
- Negroponte, N. (1996). Being Local [online]. *Wired*. Available at: <http://web.media.mit.edu/~nicholas/Wired/WIRED4-11.html> [Accessed 11<sup>th</sup> February 2016]
- Neubauer, D. Paepcke-Hjeltness, V. Evans, P., Barnhart, B. and Finseth, T. (2017) Experiencing Technology Enabled Empathy Mapping. [online] *The Design*



- Journal*, 20 (1), Available at: <https://doi.org/10.1080/14606925.2017.1352966> [Accessed 11<sup>th</sup> May 2018]
- Neuman, J. (2011). Unexpected Cosmopolitans: Media and Diaspora in J. M. Coetzee's *Summertime. Criticism*, 53 (1), pp.127-136.
- Noble, S. (2018). *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York, NY: New York University Press.
- O'Doherty, M. (2010). I Believe in the Internet. [online] *Fortnight*, 472. pp.22-23. Available at: <http://www.jstor.org/stable/i40075997>. [Accessed 14th March 2016]
- O'Neill, J. (2006). 'New Fiction [online]. *The Atlantic*. Available at: <https://www.theatlantic.com/magazine/archive/2006/10/new-fiction/305210/> [Accessed 14<sup>th</sup> June 2016]
- Orwell, G. (1949/2008). *Nineteen Eighty-Four*. London: Penguin.
- Ovid (8AD/2004). *Metamorphoses: A New Verse Translation*. London: Penguin.
- Pankaj, M. (2011). Modernity's Undoing [online]. *London Review of Books*. Available at: <https://www.lrb.co.uk/v33/n07/pankaj-mishra/modernitys-undoing> [Accessed 31st March 2016]
- Parikka, J. (2015). *A Geology of Media*. Minneapolis, MN: University of Minnesota Press.
- Parry, B. (1998) Speech and Silence in The Fictions of J. M. Coetzee. pp.149–165. In: Attridge, D. and Jolly, R. (eds) *Writing South Africa: Literature, Apartheid, and Democracy, 1970–1995*. Cambridge: Cambridge University Press.
- Penny, L. (2014). *Unspeakable Things*. London: Bloomsbury.
- Phelps, N. (2008). Rhyme, Reason, and Animal Rights: Elizabeth Costello's Regressive View of Animal Consciousness and its Implications for Animal Liberation. *Journal for Critical Animal Studies*, 6 (1). pp.1-16
- Piotrkowski, C. S. and Brannen, S. J. (2002). Exposure, Threat Appraisal, and Lost Confidence as Predictors of PTSD Symptoms Following September 11, 2001. *American Journal of Orthopsychiatry*, 72 (4), pp.476-785.
- Pohl, R. (2017). Ali Smith, Enthusiasm, and the Literary Market. *MFS Modern Fiction Studies*, 4 (63), pp.694-713.
- Pontin, J. (2012). How Authors Write: The Technologies of Composition, Not New Media, Inspire Innovations in Literary Styles and Forms. [online] *MIT Technology Review*, 115 (6) Available at: <https://www.technologyreview.com/s/429654/how-authors-write/> [Accessed 20<sup>th</sup> April 2018]
- Postman, N. (1993). *Technopoly: The Surrender of Culture to Technology*. New York: Vintage.



- Preston, A. (2016). Autumn by Ali Smith Review — The First Serious Brexit Novel. [online] *The Financial Times*. Available at: <https://www.ft.com/content/0e227666-8ef4-11e6-a72e-b428cb934b78> [Accessed 16th October 2016].
- Pöppel, E. (1978). Time Perception. In: Held, R. Leibowitz, H.W., and Teuber, H.L. ed. *Handbook of Sensory Physiology*. Berlin: Springer-Verlag.
- Rees Moore, J. (2004) A Woman Possessed. [online] *The Sewanee Review*, 112 (2), pp. xlvii-li. Available at: [www.jstor.org/stable/27549487](http://www.jstor.org/stable/27549487) [Accessed 2nd April 2015]
- Richards, T. (1991). *Commodity Culture of Victorian England: Advertising and Spectacle, 1851-1914*. Stanford, CA: Stanford University Press.
- Roberts, B. (2015). Competing Authenticities. [online] *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism*, 12 (2) pp.1-11. Available at: <https://muse.jhu.edu/article/603596/pdf>. [Accessed 5th May 2017]
- Robey, T. (2010). Interview with Tom McCarthy. [online] *The Telegraph*. Available at: <https://www.telegraph.co.uk/culture/books/authorinterviews/7916553/Interview-with-Tom-McCarthy.html>. [Accessed 5th May 2017]
- Robinson, F. G. (2012). Writing as Penance: National Guilt and J. M. Coetzee. *Arizona Quarterly*, [online] 68 (1), pp.1-54. Available at: <https://muse.jhu.edu/article/469080/> [Accessed 2<sup>nd</sup> April 2015]
- Ronson, J. (2015). *So You've Been Publically Shamed*. London: Riverhead Books.
- Rosen, B. (2016). EU Court Slams Indiscriminate Data Collection, Opening Challenge to British Cyber Law. [online] *The Christian Science Monitor*. Available at: <https://www.csmonitor.com/Technology/2016/1221/EU-court-slams-indiscriminate-data-collection-opening-challenge-to-British-cyber-law> [Accessed 8th March 2018]
- Rushroff, D. (2013). *Present Shock: When Everything Happens Now*. London: Penguin.
- Ruskin, J. (1865/2002). *Sesame and Lilies*. London: Yale University Press.
- Ryan, K. (2015). Doping and anti-doping: the excesses of enterprise and the tyranny of transparency. *International Journal of Sport Policy and Politics*, 7 (4), pp.637-653.
- Sagar, R. (2015). Against Moral Absolutism: Surveillance and Disclosure After Snowden. *Ethics & International Affairs*, 29 (2), pp.145-159.
- Said, E. W. (2006). *On Late Style*. London: Bloomsbury.
- Sandhu, S. (2015). Sir Salman Rushdie Claims 'I Was Just Fooling Around' As His Ratings of Other Authors' Work Go Viral [Online] *The Independent*. Available at: <https://www.independent.co.uk/news/people/sir-salman-rushdie-claims-i-was->

[just-fooling-around-as-his-ratings-of-other-authors-work-go-viral-10156390.html](http://just-fooling-around-as-his-ratings-of-other-authors-work-go-viral-10156390.html).

[Accessed 4th April 2015]

- Scott Kastan, D. (2008). From Codex to Computer; Or, Presence of Mind. pp.729-750. In: Lodge, D. and Wood, N. ed. *Modern Criticism and Theory: A Reader*. 3rd ed. Harlow: Pearson.
- Shaftesbury, Third Earl of. (1711/1999). *Characteristics of Men, Manners, Opinions, Times*. ed. Lawrence E. Klein. Cambridge: Cambridge University Press.
- Sheers, O. (2015). *I Saw a Man*. London: Faber & Faber.
- Sinclair, M. (1915/2010) *A Journal of Impressions in Belgium* [eBook} Salt Lake City UT: Project Gutenberg Press. Available at: <http://www.gutenberg.org/ebooks/31332> [Accessed 16<sup>th</sup> August 2016]
- Sinclair, M. (1922/2003). *The Life and Death of Harriett Frean*. London: Virago.
- Smith, A. (2002). *Hotel World*. London: Penguin.
- Smith, A. (2005). *The Accidental*. London: Penguin.
- Smith, A. (2008). *Girl Meets Boy*. Edinburgh: Canongate.
- Smith, A. (2011a). *There but For The*. London: Hamish Hamilton.
- Smith, A. (2014a). *Ali Smith Webchat - As It Happened*. [online] <https://www.theguardian.com/books/live/2014/sep/24/ali-smith-webchat-how-to-be-both> [Accessed 18th August 2017]
- Smith, A. (2014b). *How to Be Both*. London: Hamish Hamilton.
- Smith, A. (2016a). *Autumn*. London: Hamish Hamilton.
- Smith, D. E. (1953). *History of Mathematics*. New York: Dover.
- Smith, S. and Watson, J. (2010). *A Guide for Interpreting Life Narratives: Reading Autobiography*. 2nd ed. Minneapolis, MN: University of Minnesota Press.
- Smith, Z. (2011b). *Changing My Mind*. London: Penguin
- Soja, E. (1989). *Postmodern Geographies*. London: Verso.
- Standing, G. (2011). *The Precariat: The New Dangerous Class*. London: Bloomsbury.
- Staples, W. G. (2014). *Everyday Surveillance: Vigilance and Visibility in Postmodern Life*. 2nd edition. Lanham, MD: Rowman & Littlefield.
- Stiegler, B. (2011). Pharmacology of Spirit: And That Which Makes Life Worth Living. pp.294-310. In: Elliott, J. and Attridge D. eds. *Theory After Theory*. London: Routledge,
- Strick, K. and Cornwell, S. (2015). What Clegg, Miliband, Farage and Cameron taste like: the synaesthesia vote. [online] *The Guardian*. Available at: <https://www.theguardian.com/artanddesign/gallery/2015/may/07/clegg->

- [miliband-cameron-farage-the-synaesthesia-vote-in-pictures](#). [Accessed 9th September 2016]
- Sui, D. Z. and Rejeski, D. W. (2002). Environmental Impacts of The Emerging Digital Economy: The E-For-Environment E-Commerce? [online] *Environmental Management*, 29 (2), pp 155–163 Available at: <https://doi.org/10.1007/s00267-001-0027-X>. [Accessed 21st February 2016]
- Suitor, K. F. R. (1998). Don't Forget about Networks When Talking Y2K. (Millennium Bug Affects Networking Infrastructure) [online]. *Computing Canada*, 24 (26) pp.30-1. Available at: <https://search-proquest-com.ezproxy.sussex.ac.uk/docview/225011092?accountid=14182> [Accessed 16<sup>th</sup> April 2018]
- Sutton, D. Brind, S. and McKenzie, R. (2007). *The State of The Real: Aesthetics in The Digital Age*. London: I. B. Tauris.
- Talks at Google. (2012). *Jennifer Egan: "A Visit from the Goon Squad" / Talks at Google*. Available at: <https://www.youtube.com/watch?v=DMz6nysA93U>. [Accessed 16<sup>th</sup> June 2016]
- Taplin, J. (2017). *Move Fast and Break Things: How Facebook, Google, and Amazon Cornered Culture and Undermined Democracy*. New York: Little, Brown and Company.
- Thurschwell, P. (2005). *Literature, Technology and Magical Thinking, 1880-1920*. Cambridge: Cambridge University Press.
- Turkle, S. (1997). *Life on the Screen: Identity in the Age of the Internet*. London: Simon & Schuster.
- Turkle, S. (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York, NY: Basic Books.
- Turkle, S. (2015). *Reclaiming Conversation: The Power of Talk in a Digital Age*. New York, NY: Penguin.
- Uhlmann, A. (2012). J. M. Coetzee And the Uses of Anachronism in Summertime. *Textual Practice*, 26 (4), pp.747-761.
- Vanderbilt, T. (2016). *You May Also Like: Taste in an Age of Endless Choice*. London: Simon & Schuster.
- Veinberg, S. (2015). Digital native's attitude towards news sources. [online] *Public Relations Review*, 41 (2), pp.299-301. Available at: <https://doi.org/10.1016/j.pubrev.2014.11.004>. [Accessed 15th March 2018]
- Vermeulen, P. (2012). The Critique of Trauma and the Afterlife of the Novel in Tom McCarthy's *Remainder*. *MFS Modern Fiction Studies*, 58 (3), pp.549-568.

- Vint, S. (2016). *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction*. Toronto: University of Toronto Press.
- Vint, S. (2011). 'Introduction: Science fiction and Biopolitics.' *Science Fiction Film and Television*, 4(2), pp.161-172.
- Virilio, P., Kittler, F. and Armitage, J. (1999). *The Information Bomb: A Conversation. Angelaki*, 4 (2), pp. 81-90.
- Watson, D. (2017). Derivative Creativity: The Financialisation Of the Contemporary American Novel. *European Journal of English Studies*, 21 (1), pp.93-105.
- Watt, I. (1974). *The Rise of The Novel: Studies in Defoe, Richardson And Fielding*. London: Chatto and Windus.
- Waugh, P. (1984). *Metafiction: The Theory and Practice of Self-Conscious Fiction* London: Routledge.
- Weber, S. (1996). *Mass Mediaurus: Form, Technics, Media*. Stanford, CA: Stanford University Press.
- Wells, H. G. (1895/2005). *The Time Machine*. London: Penguin Classics.
- White, D. (2017). *Satin Island* by Tom McCarthy, Review: 'Induces Mania' *The Telegraph* 29/07/2015.
- Winyard, B. (2015). How to Be Both: An Audience with Author Ali Smith. [online] Birkbeck, University of London Blogs. Available at: <http://blogs.bbk.ac.uk/events/2015/11/25/how-to-be-both-an-audience-with-author-ali-smith/> [Accessed 2<sup>nd</sup> April 2017]
- Witt, S. (2015). *How Music Got Free*. London: Vintage.
- Wittgenstein, L. (1998). *Culture and Value (Revised Edition)*. ed. Von Wright, G.H. Oxford: John Wiley & Sons.
- Wittgenstein, L. (1921/2001). *Tractatus Logico-Philosophicus, 2<sup>nd</sup> Edition*. London: Routledge.
- Woiak, J. (2007). Designing A Brave New World: Eugenics, Politics, And Fiction. *The Public Historian*, 29 (3), pp.105-129 Available at: <http://www.jstor.org/stable/10.1525/tph.2007.29.3.105> [Accessed 22<sup>nd</sup> October 2016]
- Wolfram, C. (2015). Binary Thinking — Right for Computers, Wrong for The Real World [online] *The Financial Times*. Available at: <https://www.ft.com/content/1327bc52-7eec-11e5-98fb-5a6d4728f74e> [Accessed 30<sup>th</sup> November 2015]